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LECTURES
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LECTURE XLIII.

IODINE AND ITS PREPARATIONS:—*Fewness of cases of poisoning therewith. Symptoms. Effect of medicinal doses, too long continued. Experiments by Orfila. Two modes of the operation of iodine. Post-mortem appearances when fatal.—Poisoning with biniodide of mercury, and iodides of arsenic, iron, and zinc.—Chemical evidence of poisoning with iodine, or its salts.* 1. *Pure iodine;* 2. *Hydriodate of potassa,* (*a*) *uncombined,* (*b*) *combined;* 3. *Iodide and biniodide of mercury;* 4. *Iodide of lead;* 5. *Iodide of sulphur;* 6. *Iodides of iron and arsenic.—Treatment of poisoning with iodine or its salts.*

IRRITATING GASES:—*Their poisonous effects always accidental. Several unrespirable gases not irritants.—Suffocation and irritation with sulphurous acid gas; the symptoms. Mr. Braid's history of an accident therewith at Leadhills. Chemical characters. Treatment. Poisoning therewith.—Nitrous acid gas. Characters, symptoms, treatment, and post-mortem appearances.—Chlorine. Its wholesomeness when diluted. Its irritation when concentrated. Chemical evidence and treatment.*

GENTLEMEN:—Iodine is one of those substances which chemical science has brought to light in our time. It was discovered by M. COURTOIS in 1812, and introduced as a therapeutical agent in 1819. Few cases of its poisonous influence have been recorded, but both it, and its preparations, are in daily use as remedial agents, consequently it is of importance to be acquainted with its deleterious influence; and when it has been overdosed, or otherwise improperly administered, with the means of counteracting its poisonous influence when that occurs.

Symptoms.

Among the few cases of poisoning by iodine, on record, is one of a child of four years of age, who died a few hours after taking a scruple of it, in the form of a tincture; but as Dr. GAIRDNER, who has recorded this case, does not mention the symptoms which it produced, there is some difficulty in determining what is due to the iodine, and what to the alcohol, for f℥ss. of strong alcohol must have been swallowed on this occasion. From two instructive cases published by M. ZINCK, a Swiss physician, in the "Journal Complementaire," for April, 1824, we may conclude that although iodine only in very large quantities operates as a corrosive poison, yet, that it may also prove fatal by accumulating in the habit, like mercury, or foxglove, and some other medicinal agents. In one of these cases the tincture had been taken in moderate doses for upwards of a month, without causing any untoward effect, when the patient increased the dose to a teaspoonful: suddenly febrile symptoms presented themselves. M. ZINCK found his patient restless, and complaining of a general sensation of burning heat, so strong, that he lay quite naked in the coldest period of the month of December: he had tremors of the hands; palpitations, sometimes violent, succeeded by prolonged syncope; insatiable thirst; a sense of burning along the course of the gullet; frequent purging of a matter sometimes clear, sometimes bilious, sometimes black; violent priapism; the pulse very frequent, small, and tremulous, and, alternately, hard and soft; the tongue was dry, and the body generally emaciated. When some of these symptoms diminished, those which indicated intestinal irritation, and the general inflammatory state of the system, continued; and at the termination of six weeks from the time that the symptoms of the poisoning displayed themselves, the patient expired in the act of getting into bed. The bronchocele for which the iodine was prescribed remained unaltered. A similar case occurred to Sir BENJ. BRODIE, whose patient, con-

trary to his orders, got out of bed to the night-stool, and expired in again getting into bed.

M. Zinck met with another case, very similar, in a female, which, also, terminated fatally. The strength of the tincture of iodine administered in this case is not mentioned; but I suspect it contained more iodine than the tincture used in England, which consists of ℈ij. to f℥j. of alcohol. I have frequently carried the dose of the tincture to f℥j., three times a day, without observing any inconvenience from its use.

M. Moscurrier* has recorded a case in which f℥iij. of the tincture were taken. The dose was quickly followed by extreme dryness of the pharynx, extending to the stomach, with tearing pains of the stomach, and vain efforts to vomit. At the termination of an hour, the face became flushed; the pulse quick, small, and concentrated; with a tendency to convulsions. These symptoms were allayed by soliciting vomiting with tepid water, and by the administration of opiates.

In the administration of iodine as a remedy, we find that, after being used for some time, it is apt to cause headach, vertigo, sickness at the stomach, languor, inaptitude for exertion, and general nervous feelings, and sore throat: even ptyalism, also, occasionally occurs during its employment. When these febrile and nervous symptoms take place, the pulse generally rises to above 100, and Dr. Manson found this to be the case in several instances where the tincture was given as a remedy for palsy.

In some habits in which we must suppose a peculiar idiosyncracy to exist, even small doses cause palpitations of the heart, restlessness, and want of sleep; convulsions, faintings, and great prostration of strength. A fatal case is mentioned in "Rust's Magazine," which sank under these symptoms, with the addition of hardening of the liver. It must be admitted that much is to be attributed to idiosyncracy, in many of the recorded cases, large doses have been taken with impunity: thus, from two to eighteen grains of iodine have been swallowed daily, until 953 grains were taken, without any inconvenience being experienced; and M. Magendie swallowed ℈j. in the form of tincture, without experiencing any bad effect.

Let us turn from these details to the experiments of Orfila on himself and on dogs. Orfila took six grains of iodine; he instantly felt heat and constriction of the throat, nausea, pain of stomach, salivation; and, in ten minutes, copious bilious vomiting supervened, with slight colic pains; and the pulse rose to 90, and became full. Next day he felt slightly fatigued. When from ℈j. to ℈jss. were given to dogs, they vomited almost immediately, and freely; and when the œsophagus was tied, these doses proved invariably fatal: efforts to vomit, hiccough, thirst, quick pulse, great depression of strength, and death, followed. When the dose was increased to ℈ij. or ℈iij. it proved fatal, even when the gullet was not tied.

From these details it is evident that iodine operates in two distinct manners upon the living body; and in this respect it closely resembles arsenic in some of its poisonous properties. In large doses, its local irritant, or corrosive influence, is immediately experienced on the tissue to which it is applied; and the lesions thus produced are sufficient to account for the fatal effects of the poison. The nature of this action may be conceived by noticing the result of its external application: it causes heat, inflammation, an eruption of pustules; and, frequently, vesication, when the iodine is rubbed upon the skin. In small doses it enters the circulation, and, besides stimulating powerfully the capillaries to which its curative influence in glandular obstructions is to be attributed, it accumulates in the body, and operates powerfully on the nervous system. The oppression, palpitation of the heart, and syncope, demonstrate its influence on the nervous energy, and more especially on the nervous plexus of the great sympathetic. Its influence is chiefly, however, experienced on the lymphatic system, and the generative organs; it augments absorption, suppresses the formation and deposition of adipose matter, and determines to the genital organs.

The doses at which iodine may prove mortal are from grs. 18 to 30; but this varies according to circumstances.

Post-mortem appearances.

Let us now inquire how far these views of its poisonous influence are supported by the appearances displayed in the post-mortem examinations of bodies poisoned by it. I will not occupy your time in referring to the dissection of the dogs poisoned by Orfila, but detail the appearances observed by M. Zinck in one of the cases to which I have already referred.

1. The *trachea* was natural, but the *œsophagus* was much contracted in diameter, and its lining membrane throughout inflamed.

2. The *stomach* was externally marbled with red spots indicative of inflammation having existed there, and at the inferior part of the lesser curvature there was excoriation of the peritoneal coat. Many of these spots appeared sphacelated. In one case the coat of the stomach was excoriated to the extent of two inches square; and

* Journ. Chem. Med. iv. 216.

the serous membrane was detached in several places to the same extent. The internal surface of the viscus was universally red, but most so near the pylorus, where there were also several corroded spots.

3. The other portions of the *intestinal canal* were adhering together by strong and general adhesions; and, in some parts, appearances of gangrene were obvious.

4. The *liver* was large, and of a pale rose colour.

5. The *sac of the peritoneum* contained a considerable quantity of serous fluid, corresponding with the general extension of inflammatory action throughout.

6. The *thoracic viscera* did not display any peculiar evidence of the influence of the poison, with the exception that the sac of the pleura, like that of the peritoneum, was filled with serous fluid, and the pericardium was firmly adhering to the sternal parts of the pleura. Unfortunately no examination of the brain was permitted; nor has this desideratum, so far as my knowledge extends, been yet filled up.

Biniodide of mercury.—Iodide of arsenic.

The same symptoms which indicate poisoning by overdoses of iodine, attend poisoning with the other preparations of iodine, except the preparations of the biniodide of mercury, and the iodide of arsenic. When overdoses of the former are taken, besides the symptoms of local irritation and inflammatory action and nervous depression which characterise what may be termed the iodization of the system, symptoms closely resembling those of shaking palsy, appear, namely, involuntary agitation of the head and the limbs; the body is bent forwards; tremblings, and complete loss of volition in the hands and arms takes place, and the tremor occurs even during sleep. Whether these symptoms are to be referred to the mercury or the iodine it is difficult to say. It is not improbable that amalgams aid in giving activity, or rather in rendering, both bases more active than either alone; and, in this respect, we should feel inclined to regard iodine almost as a metallic body.

The effects produced by an overdose of the iodide of arsenic, namely, gr. ss, closely resemble those of poisoning by arsenious acid; but the fatal effects on dogs are more rapidly produced. Little can be said respecting the preparations of iodine lately introduced as therapeutical agents. The iodide of iron, in doses of gr. x., operates more or less as a poison, according to the state of the habit at the time. Having taken a dose of it to that extent, I experienced severe headach, pain at the epigastrium, nausea, and tremors; but all these symptoms subsided in a few hours. Iodide of zinc appears to have no poisonous influence, even in large doses. Such are the symptoms when poisoning has been effected by iodine, or by any of its salts.

Chemical evidence.

With respect to the chemical evidence in cases of poisoning by iodine, or its salts, it is easily obtained, and is most satisfactory.

1. PURE IODINE.

a. Pure iodine is readily recognized by its physical appearance; it exists in crystalline micaceous scales, of a bluish-black colour, with a metallic lustre. It communicates a brownish tint to the skin, and an orange-brown to paper, and produces a brown solution with water, or alcohol, or ether.

2. When heated in a tube, it evolves vapour of a rich violet colour, and rapidly condenses again in crystalline scales, when the tube cools.

3. When its solution is tested with solution of starch, a blue iodide of amidine is formed, if 1-450,000th part of iodine be present in the liquid. To insure the action of this test, both the solution of the iodine and that of the starch must be cold.

Tests of iodine in compound fluids.

In many mixtures iodine may be readily detected by its effects on the fluid; thus, it reddens deeply the colour of wine. Beer and cider are also affected nearly in the same manner. Iodine gives to milk a yellow tinge, more or less deep; but, by degrees, the milk recovers its natural colour. In order to detect it in combination the following tests may be employed:—

1. Ether. This fluid has a powerful affinity for iodine, and separates it from all other fluids; the ethereal solution may be tested with starch, in the same manner as the watery solution.

2. Pass a stream of sulphuretted hydrogen through the fluid suspected to contain the iodine; filter, super-saturate with liquor potassæ, and evaporate to dryness. If much animal or vegetable matter be present, char the residue in a low red heat, in a crucible, and then digest it in alcohol. This tincture, diluted, and mixed with cold solution of starch, may then be tested either with gaseous chlorine, or with nitro-muriatic acid. Iodide of amidine is formed if the fluid contain iodine.

The same process may be employed in examining the contents of the stomach, or the stomach itself. The stomach should be washed with a weak solution of potassa, and, after being boiled, treated with sulphuretted hydrogen gas, as already described.

3. The urine of persons suspected of having been poisoned by iodine, should always be tested. The iodine, in passing through the system, is converted into a hydriodate. Mix the urine, when cold, with solution of starch, and pour on it chlorine gas. Iodide

of amidine is formed if iodine have been the poison.

This mode of testing the animal fluids, and mixed fluids suspected to contain salts of iodine, with gaseous chlorine, which I suggested, has a great advantage over that in which the aqueous solution of chlorine is used. As the gas lies upon the surface of the fluid upon which it is poured, it acts only upon that portion of the fluid which is in contact with it; and, as the iodide of amidine is formed, by gently agitating the glass, fresh surfaces are successively presented to the gas, until the whole becomes blue. On this account too much chlorine can never be added, and yet a sufficient influence is exerted to detect the most minute quantity of any salt of iodine present in the fluid. It is preferable to employ a deep or a cylindrical glass.

2. HYDRIODATE OF POTASSA.

a. Uncombined.

1. In the solid form this salt crystallizes in cubes. It is distinguished from chloride of sodium by its fusing when heated, and subliming below a full red heat, by its solubility in strong alcohol, and by testing its solution with chlorine. Drop on the salt in a tube strong sulphuric acid, and heat the tube in the flame of a spirit lamp. In this case the acid turns the salt brown with effervescence, and the heat evolves the violet fumes of the freed iodine.

2. Its solution in water is supposed to form a hydriodate; this is readily decomposed and recognized by the following tests:—

a. Chlorine poured on the suspected solution, mixed with cold solution of starch, forms hydrochlorate of potassa and iodide of amidine, if the hydriodate be present.

b. Chlorine water gives the same results, but care must be taken not to add too much of the solution. On this account the gaseous chlorine is the best test; it is capable of detecting one part of the iodide in 100.000 parts of water.

c. Acetate of lead throws down the yellow iodide, if the hydriodate be in the proportion of one in 2000 of the water.

d. Solution of corrosive sublimate precipitates a red biniodide, if the proportion of the hydriodate be one in 18,000.

e. Solution of pernitrate of mercury forms the red biniodide if the proportion of hydriodate be one in 60,000. In using the tests *d* and *e*, care must be taken not to add too much of the tests, as the iodides are redissolved as soon as they are formed.

f. Sulphuric acid decomposes the salt if the proportion of it be one part in 10,000 parts of water.

g. The *nitrous acid of the shops* operates in the same manner as chlorine if the salt be in the proportion of one part in 50,000 parts of water. The gaseous chlorine is the best of these tests, as it detects the salt in every proportion.

b. Combined.

3. In *milk* the hydriodate is detected by chlorine; and by nitrous acid when the suspected milk is mixed with cold solution of starch.

4. In *broth* it is detected by the same tests.

5. To detect it in *blood*, boil, to coagulate the albumen, then filter, and test with chlorine.

6. In *arrow root* gaseous chlorine immediately detects it, by forming the iodide of amidine.

7. In *urine* it is detected by mixing with cold solution of starch, and pouring chlorine on the mixture; or nitrous acid may be used instead of the chlorine.

3. *Iodide and biniodide of mercury.*

The first of these salts, the iodide of mercury, is usually in the form of a greenish-yellow powder, but when sublimed it is in orange-yellow scales: it is a compound of equal proportions of iodine and mercury. The biniodide is of a brilliant scarlet colour, and by sublimation it is procured in shining scales of the same hue. When the iodide is heated in a tube it melts, and sublimes red first, and afterwards becomes yellow: if we pour on the hot, fused iodide some gaseous chlorine, a chloride of mercury is formed, and violet fumes of free iodine are evolved. Before subjecting the iodide to heat, if we add liquor potassæ, the metallic mercury will sublime, and iodide of potassa be formed. By dissolving the latter, and testing as before, our evidence is complete. The same results are obtained from a similar treatment of the biniodide.

4. *Iodide of lead.*

This salt, as obtained by precipitation, is a bright yellow, opaque powder, which is soluble in boiling water, and is deposited, on the cooling of the water, in very brilliant golden-coloured scales. A small portion of it remains in solution, which greatly facilitates the testing.

1. Boil the suspected powder in water, and when the solution is cold mix it with mucilage of starch, and pour on the mixture chlorine gas, or drop into it nitrous acid. Iodide of amidine is formed, and chloride of lead when the gaseous chlorine is employed; and iodide of amidine and soluble nitrate of lead when the nitrous acid is the testing agent.

2. Sulphuric acid cannot be employed, as the sulphate of lead is precipitated,—the oxygen of the decomposed water forming the oxide, whilst hydriodic acid is produced by the hydrogen; and, consequently, as no free iodine is involved, no iodide of amidine is formed.

5. Iodide of sulphur.

This salt has a dark-coloured, lamellar, radiated appearance, somewhat like antimony; when it is put into a tube and heated the iodide is decomposed, and violet fumes are evolved.

6. Iodides of iron and of arsenic.

1. In the free state the iodide of iron is known by its dark, metallic colour, its deliquescing rapidly, and, when decomposed by heat evolving purple fumes. Its solution is tested exactly like that of the hydriodate of potassa.

2. In the solid form iodide of arsenic is deep red. It sublimes in a tube, and is decomposed by gaseous chlorine. Violet fumes are evolved. The solution is to be tested in the same manner as the hydriodate of potassa.*

If we obtain only the vomited matters, all the salts of iodide may be taken up by alcohol and ether, and the solutions then tested in the usual way. The urine, the blood, and all the secretions may be tested with gaseous chlorine. If the symptoms lead to a suspicion of poisoning with iodine, and none of the poison be found, this simple mode of testing the urine, blood, and other animal fluids, is most important. If much albumen, however, be present in the system, a compound is formed which yields precipitates to none of the usual tests. In this case the liquor potassæ must be added; then the compound evaporated to dryness; the residue charred; and the iodine taken up with alcohol, and tested as before.

Treatment of cases of poisoning by iodine.

When your assistance, Gentlemen, is demanded in sufficient time, empty the stomach by means of the stomach-pump, using a solution of starch instead of water. Administer cold mucilage of starch, or boiled flour and water, freely. If the secondary symptoms have come on, then purgatives, opium, ammonia, and complete repose of the body, are the best modes of securing the safety of the patient.

In cases of poisoning by the salts of iodine, use the stomach-pump, with a weak solution of chlorine, containing cold mucilage of starch, and treat the secondary symptoms in the same manner as if they resulted from the influence of the pure iodine.

From the extensive employment of the salts of iodine, as therapeutical agents, although few or no cases of direct poisoning by them are on record, yet some plan of treatment should be laid down. That which I have recommended is, in my opinion, the most likely to prove beneficial.

IRRITATING GASES.

Gentlemen:—Although I have put down mechanical irritants, in your syllabuses, as poisons, because they are so treated of by ORFILA, and some other writers, yet I cannot permit myself to occupy your time with any details respecting them.

With respect to the irritating gases, although cases have occurred, and have been followed by fatal effects, in which they have been the poisonous agents, yet, as they can be merely the result of accident, they can never become the subject of any investigation in a criminal court of judicature. As, however, in fatal instances, coroners' inquests must be held upon the bodies, it is requisite that you should be acquainted with the symptoms of poisoning by them, and the means of obviating these when death does not ensue.

Several of the unrespirable gases cannot be classed as irritants, and some which are so classed, cannot be regarded as objects of a course of medical jurisprudence, as they are never produced except as matters of scientific research.

SULPHUROUS ACID GAS.

The first of the irritant gases which I have to notice is the

Sulphurous acid gas.—This gas is evolved when collieries take fire, and in some chemical processes. When it is not largely diluted it causes suffocation; when much diluted it excites great irritation and inflammation of the mucous membrane, and secondary symptoms closely resembling those caused by an overdose of ardent spirits.

I cannot afford you a better account of the symptoms than by reading part of the details of a fatal accident at Leadhills, published by Mr. BRAID, in the thirteenth volume of the "Edinburgh Medical and Surgical Journal," p. 353. Mr. BRAID there says,—

"On 1st March last I was sent for, at about 7 o'clock A.M., to try if anything could be done for a number of men who were found in the Lead hills Company's mines, who appeared to be suffocated.

"On the 30th December, 1816, a young man who kept a fire-engine nearly 600 feet below the surface, was found dead, and the air where he was, not to be at all agreeable. The usual modes of resuscitation were tried, but without any good effects.

"On 24th of February, 1817, there were several men very severely affected from the bad state of the air, but, by giving them gentle laxatives, and keeping them quiet, they got pretty well again in the course of a few days.

* On boiling this iodide with an additional quantity of metallic arsenic, a pale yellow iodide is obtained, which, I am inclined to think, is a protiodide, but I have not yet had an opportunity of examining it, so as to determine the fact. Chemists have stated that no protiodide of arsenic exists.

"On the 1st of March none of the men had got to bank, when I arrived, except a few who had been down only a very short time, and returned upon finding the air so bad. By-and-by, a number of those who had been down for a short time, at 25 fathoms, were brought up, and most of them quite furious. Some were disposed to fight; others, supposing every one they saw inclined to lay hands on them, made efforts, under the most extreme terror, to escape; others, quite listless, appeared to take no notice of what was going on around them. Some were singing, and some praying. Many were as if intoxicated with ardent spirits; those who had seen them in that state assured me their actions were very much the same.

"Many of them vomited, and others had the inclination, but could not do so. Some evacuated the contents of the rectum, and others had the desire, without effect. The pulse was different; in some, remarkably quick and feeble; in others, slow, feeble, and irregular. Most complained of insufferable headach, which was somewhat relieved after vomiting. To those who had a desire to vomit without effect, I gave an emetic of sulphate of zinc; and to those troubled with tenesmus, a laxative glyster; both were followed by an alteration of symptoms.

"In the course of two or three hours from the time they were brought to bank, the pulse was greatly accelerated, and hard. I prescribed a brisk purgative, after the operation of which they found themselves greatly relieved, and, by enjoining a cooling regimen, most of them got pretty well in the course of a few days, without any other medicines. Upon inquiring of the men how it affected them, they said they first felt a difficulty of breathing, and had frequent involuntary deep inspirations; then a violent pain and beating in the head, with ringing of the ears; the inferior extremities became weak, and very painful immediately above the knees, and they could, with difficulty, support the body; the heart palpitated violently with great anxiety, in some followed by vomiting. They now became giddy, and lost all recollection, and were, as has been remarked, affected as if they had taken a large dose of ardent spirits.

"There were four men, however, at 25 fathoms, who were irrecoverably lost, through their own imprudence in going to work at irregular hours. Though six o'clock A.M. was the proper hour, two had gone before four, and the other two a little after, in order that they might get out so much sooner. Such practices are not sanctioned by the masters. When they came to the bad air they had thought to force their way through it, expecting it to be better below; but it soon produced its deleterious effects upon them, so as make them unable either to go further or to retrace their steps; and then, unable to support themselves, they had fallen, and remained amongst the bad air till assistance came too late. Animation must have been gone two or three hours before they were brought to bank, for they had been down not less than four hours. Had they not gone till the regular shift, when the air was found to be so bad, they would not have proceeded so far; and if one or two had fallen, the others would have found some means to rescue them before they were irrecoverably gone. It is presumed that the accident happened from a quantity of smoke escaping from the chimney of the engine under ground into the way-gates, about 25 fathoms, and so contaminating the air in the workings, from the quantity of sulphurous acid gas which the smoke contained, being such as to render it unfit to support animal life, or rather, highly deleterious. The men described the air to be the same as where sulphur is burning slowly, and, consequently, sulphurous acid gas is forming.

"At the time the accident happened the atmosphere was foggy, and there was a want of a proper current of air in the workings, and, in consequence of the stagnation, the air in that part of the way-gates where the smoke was escaping, became so contaminated by sulphurous acid gas, as to render it highly deleterious to animal life. A trap-door being opened, in order to save those who were still alive at about the 25 fathoms (that is, those who went at the time for a regular shift; the four who had gone in before were dead when these men went to them), and to enable others to give them assistance, with safety to themselves, the bad air immediately rushed down to the lower workings, and began to exert its deleterious effects upon those at 80 fathoms, who were effecting their escape by another shaft. All who were any length of time in this situation were violently affected in the manner already mentioned, and three (two of whom went down to save others) perished at the 80 fathoms, from all the air below the 40 fathoms becoming so bad as to render it imprudent, or, rather, impossible, for any person to go down to their assistance; and by this time they were unable to assist themselves. Those in this situation were drawn up by an engine, and the last who got on the rope, from the others, either, by this time, not being *able* to secure him properly, or not having time to do so, from his giving the signal too soon, fell from the rope, after he was within 20 fathoms of bank, and was thrown into the landing-box of the water-engine which threw the water from the landing-box (which is situated at the 50 fathoms) to the bottom of the shaft, so that it had 40 fathoms to fall. *Water was also thrown from the top, with buckets*, before the engine-water was diverted by this poor

fellow tumbling into the landing-box. The water, by falling down the shaft, caused a circulation of air, and, likewise, by absorbing the sulphuric acid gas, improved the air so much, that one who had lain at the side of the shaft, in an insensible state for more than an hour, was restored. Other two, who were only at a very little distance from him, but were by so much further from the shaft, and, consequently, where the air could not be so much improved by the waterfall, were brought up immediately after him; but, though the usual modes of resuscitation were tried, neither of them could be restored. One of these last had a very florid countenance. I took away a considerable quantity of blood from the jugular vein.

"Those of a plethoric habit were much sooner, and more violently, affected than those of a spare habit, and, from what I saw, I make no doubt but one of a spare habit might remain in some degree active, whilst one of a very plethoric habit would be irrecoverably lost. When it becomes necessary for men to go into such situations, would it not be proper to take away a quantity of blood from those of a plethoric habit? I shall certainly be disposed to try it, if ever the air shall again become bad.

"The candles burnt, though faintly, where the men perished, which was generally considered as an extraordinary thing; and the only hypothesis which I can conceive proper to be advanced on the subject is, that in a mixture of sulphurous acid gas and atmospheric air, the acrid nature of the sulphurous acid gas prevents respiration, or, rather, produces peculiarly deleterious effects, which, continued a certain length of time, will destroy animal life; whilst it has no further effect on combustion than merely mechanically preventing the more free supply of oxygen it would have from pure atmospheric air, and, consequently, causing it to burn more faintly."

A similar accident occurred in a mine in the possession of the Devon Mining Company.

Sulphurous acid gas has a suffocating, pungent odour. When it is dissolved in water, which rapidly attracts it, it destroys the colour of the infusion of roses, and that of violets; nitric acid instantly converts it into sulphuric acid, which may be tested with nitrate of baryta.

Treatment.—After throwing water into the apartments, and removing the bodies as rapidly as possible, the symptoms may be combated by bleeding, and other antiphlogistic means.

The next of the irritant gases which occurs under our consideration is the

NITROUS ACID GAS.

This gas is distinguished by its orange-red colour, its acid re-action, and its rapid absorption by water; its odour is acrid. When it is united with water, it is suddenly converted into nitric acid, with effervescence. These characters are quite sufficient to distinguish nitrous acid gas from all other gases.

One of the best illustrations of its poisonous influence is the following case, recorded by M. Cherier:—

On the 29th of July, 1822, a man, of the name of Carnot, twenty-two years of age, poured some nitric acid into a wrought-iron kettle; the acid was rapidly decomposed, disengaged a great quantity of nitrous acid, and soon perforated the kettle. Carnot removed it into an open court. A bird in a cage, which hung above the vessel, died in a few seconds. Carnot, having returned into the house to sponge up the acid which had run upon the floor, was seized with a violent cough, but he continued to work and eat to his usual hour. At six o'clock in the evening he went out, but he soon suffered so severely that he was forced to return home in a coach. At eleven o'clock at night M. Cherier, who relates the case, saw him. He was in bed, his face was pallid, his pulse raised, but the temperature of the body was natural; the breathing was difficult; and respiration was effected as if the air passed through water in the trachea; and the cough was, although dry, occasionally followed by the expectoration of an orange-coloured mucus. He was freely bled; the blood was of a very dark colour; it adhered strongly to the sides of the basin; and six hours after it had cooled, no separation of serum had taken place. Five hours afterwards he was bled again; the blood was more florid, or, rather, less deep-coloured, and separated in the usual manner, but the embarrassment of the breathing increased. Two blisters were applied to the thighs, but at six o'clock in the morning, with his mental faculties entire, the unfortunate man died.

On opening the body the lungs were found gorged with blood, as if hepatized. The left lung was less gorged than the right, and eight ounces of bloody fluid were found in the cavity of the chest: the heart was gorged with black blood; the mucous membrane of the trachea and bronchi was of a livid colour; the fauces appeared as if gangrenous; and the stomach, which was much distended with acid gas, displayed ulceration of the mucous surface in some places.

Another case of a similar kind is published in the second volume of the "Dict. des Sciences Medicales." It was treated by Dr. Desgrange, and also proved fatal. Except these two cases I am not aware of any recorded cases of poisoning by this acid gas; hence we are scarcely authorized to attempt an explanation of the manner in

which it operates on the system, or to give any directions for the treatment of such cases, except upon hypothetical principles. DIVERGIE recommends the inhaling of ammonia largely diluted in aqueous vapour; to bleed, but not to the extent practised in the case which I have detailed to you. It is, indeed, in the present state of our knowledge, one of that description of cases, which must be left to the judgment and discretion of the practitioner.

CHLORINE.

This now well-known gas may be respired when largely diluted, and workmen in chlorine works soon get accustomed to its influence, and inhale it, moderately diluted, not only with impunity, but, it is said, with much benefit, when they are suffering under any affection of the chest. Mr. TENNANT, one of the most extensive manufacturers of bleaching fluids, informed me that in the neighbourhood of his works many persons labouring under tubercular phthisis, take lodgings, to inhale the chlorine in a greatly diluted state. When it is respired concentrated, it does not enter the lungs, but causes extreme irritation, spasm, and inflammation, in the fauces and the glottis, which may produce acute laryngitis.

Two years since I accidentally inhaled a cubic foot of concentrated gaseous chlorine; I was instantly attacked with violent cough, and a sensation of suffocation continued for a few seconds, until syncope supervened, and relieved the spasm. In this manner fits of suffocation and syncope alternately succeeded each other for nearly two hours, and were at length relieved by applying flannels, dipped in hot water, over the mouth, which enabled me to breathe through the warm vapour. Acute laryngitis supervened next day, and only yielded to a course of mercury. When moderately diluted, if it enter the lungs, it may cause phthisis in those predisposed to that disease; this was the cause of the death of the younger PELLETIER. It may, also, bring on acute laryngitis, or chronic bronchitis, and terminate fatally. But still, when it is more diluted, it is a salutary agent.

Chemical evidence.—Gaseous chlorine is readily recognized by its colour, its bleaching properties on litmus and sulphate of indigo, and by its action on ammonia. In aqueous solution it acts upon gold.

Treatment.—Allay the irritation by breathing through flannels dipped in hot water, and apply leeches to the throat. When acute laryngitis occurs it must be treated in the usual manner, with mercury. The secondary symptoms are chiefly those of irritable gastric dyspepsia.

The antidotes are albumen ovi, which is coagulated by the chlorine, and entangles it in its mass, and diluted ammonia and syrup.

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS,

NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE,
BY
GEORGE G. SIGMOND, M.D.

LECTURE XXIV.

THE CONIUM MACULATUM AND THE ACONITUM NAPELLUS (*continued*):—*Advantage of occasionally varying the use of each. Importance of further investigating medical botany. Value of hemlock in icterus. Usus conii in viro qui omnem erectionem penis perdiderat. Its administration to infants. Its external application in ulcers, tinea capitis, herpetic eruptions, diseased prostate, and severe diseases which are attended with acute suffering. Frequent use of aconite in Germany. Employment of aconite by the homœopathists. Remarkable effect of aconite and hemlock in a case of gout. Their employment in tic douloureux. Causes of that disease. Hysteria. Changing of narcotics in the treatment of disease. Extraction and external application of aconitine, the alkali obtained from the aconitum napellus.*

GENTLEMEN:—The aconitum napellus, and the conium maculatum, I have before observed, have the same power of alleviating pain, of allaying the general excitement of the constitution when in a morbid state, and of palliating incurable disease. They may frequently be combined, or one occasionally substituted for the other, when the system has become habituated to the use of one or the other. Still their effects upon some diseases are more decided than upon others; and sometimes, where the remedial efficacy of the aconitum is strongly marked, that of the conium is very trifling; and the same may be observed occasionally as the reverse. Thus, conium makes no impression on acute articular rheumatism, whilst aconitum acts as a specific; and, on the other hand, in chronic rheumatism, they both act very much in the same manner. I have little doubt that when both these herbs have obtained more attention as to the suitable season for gathering them, and the proper mode of making extracts from them, they will become as great favourites with the English practitioner as they have been with the German. Every herb that has any narcotic property is of great value to us, for the influence of any one of them wears off so much by use, that in the palliation of

disease we require as many instruments as possible.

Of the necessity of attention to medical botany, you may, perhaps, think that I have already said too much; but I wish you to recollect, that whatever benefit we may derive in the cure of disease from the vast variety of minerals which the bountiful hand of Nature has supplied us with, amongst them all—however infinitely varied are their wondrous powers on the human frame—there is not a single one that can, from its own innate virtue, give ease to pain, or sleep to the suffering man. It is true that each has some extraordinary gift of which man has availed himself, and by which a change is produced upon some organ or tissue of the human body, but not one of them exerts any agency directly upon the nervous system, as a narcotic. Of all the preparations made by uniting inorganised bodies together, and of which chemistry has furnished us with such an endless variety for the assuaging of the diseases to which we are subject, there is not a single one that can be formed to imitate the simple juice that issues from the common herb which grows, independently of our aid, in producing instantaneous relief from agony the most acute.

It is with such views that I venture to dwell much on medical botany, and should I appear somewhat urgent in promoting an inquiry into Nature's marvellous laboratory, it is from a feeling that, whilst it has been much neglected, it possesses stores so rich that an ample harvest may be gleaned by every cultivator who may give his labour to the investigation.

On looking through the list of the most experienced medical writers of this country, and on examining what has been given of both these herbs, I find that very little is to be gathered from their experience. Hemlock has been found very valuable in facilitating the passage of biliary calculi; and this is of great importance, for however serviceable opium may be in this disease, and sometimes by relaxing the spasm it quickly relieves, yet it leaves the secretions from the liver in so disordered a state, that the remedy eventually becomes a fresh source of mischief, and sometimes adds fuel to the flames. The American physicians use conium in this state likewise with very great success. The testimonies of Professors Jackson and Fisher are greatly in favour of it. Bigelow, who has tried it to some extent, has found it very advantageous in icterus, which is the result of concretions in the small and narrow ducts, and are the sources of so much dreadful suffering, although they may not excite any alarm as to their production of immediate danger.

Bergius says,—"Impotentiam virilem sub usu conii curatam observavi, in viro quodam plusquam quadragenario, qui omnem erectionem penis perdiderat, postinde tamen plures liberos procreavit." This has been confirmed by other German writers. The hemlock known to Aretæus produced, however, when externally applied, the very reverse effect.

There is one circumstance that Stoerck has mentioned, and to which Murray alludes, though he does not give any confirmation from his own experience, that the herb may be with safety administered in due doses to infants; and when we reflect on the great danger attendant upon giving even the minutest doses to them of opium, it is a matter of some importance to us to have a substitute for the more dangerous narcotic. Where it certainly does not injure the mother, it is always more safe to give *her* any remedy of this nature, to act upon her offspring; and it is singular how soon the milk becomes impregnated with it. I believe, amongst the lower classes, it is not unusual to produce quiet on the baby by giving the mother a soporific. A medical gentleman, of high attainments, told me, not long since, that he found a child, whom he had placed out at nurse, constantly in a lethargic state, and that he had traced it to such a habit in the foster-mother.

In struma, when the glands are indurated; in malignant ulcers; in venereal sores, when mercury produces mischief, hemlock is found to be very serviceable; in indurations of the testicle, in diseases of the prostate gland, it alleviates the acute pain. As an external application, it has acquired a great reputation in Germany, and a cataplasm composed of two ounces and a half of the leaves, with three ounces of the honey of roses, is a very favorite remedy in the last stage of cancer; but at an earlier period, it seems rather to increase the suppuration, and it has been said to stimulate the absorption, into the system, of the poison. It seems, in most instance of tumours, whatever their nature may be, rather to increase the tendency to suppuration when it is early employed. In the worst stages of tinea capitis it has been used with the best possible results, in the form of a decoction of the leaves, and sometimes the leaves moistened have been equally successful. In very bad cases of herpetic eruption it has obtained a cure, both taken internally and applied externally. Dr. Valentin, a physician at St. Domingo, has used it for this disease and also for others. He appears to have been struck with the salivation that was produced by it. He found the herpetic eruptions of the West Indies, which are aggravated by the use of mercury, to yield very rapidly to hemlock.

The diseased state of the prostate, in which only temporary relief can be gained, is oftentimes rendered most supportable by suppositories of hemlock. John Hunter

says, "As a temporary relief from pain, as also to remove spasm, opiate clysters should be thrown up, once or twice a day; a certain cure, I am afraid, is not yet known. I have seen hemlock of service in several cases, where it was given on a supposition that those cases had something scrofulous in them." From the same authority I quote a passage upon the cure of bubos where they become stationary, and appear to have but little disposition to spread:—"I have often seen them give way to hemlock, and sooner than to anything I am acquainted with, especially if joined to the bark. If the hemlock is applied both internally and externally it answers better." He likewise gives the case of a woman who had undergone repeated salivations for the syphilitic disease; ulcers broke out in her nose and all over her face, with what is called a true cancerous appearance. Mercury, sarsaparilla, and bark, were ineffectually given; the sores became deep and very painful; she was then directed to hold the parts affected over a decoction of hemlock every four hours, and to take as much extract at night as she could bear internally. She had sleep, and was free from pain the first night, and in a few days the sores put on a healing appearance. She lost her nose and one side of her mouth, but in six weeks every part was skinned over. The disease, however, recurred after she had been well for three months, and with redoubled violence, and soon destroyed her. JOHN HUNTER concludes by observing, that probably the hemlock should have been continued longer. Certainly, in a vast number of those terrific diseases whose most marked feature is acute suffering, which would gradually induce hectic fever, the internal and external use of hemlock may be considered to be the most appropriate means of giving relief, and I firmly believe it to be a blessing to the human race; in the words of MURRAY, "Divini remedii nomine digna." It may, with great propriety, be combined with other therapeutic agents, and most decidedly with the aconite, medicinally used.

With regard to aconite, it certainly is well worthy of greater trial in this country, and from one to two grains may be used, increasing it gradually, in the language of its great advocate,—"Si vero mali nihil superveniat, lenta et prudenti manu augenda est dosis donec optatus observetur effectus, dein autem augere amplius dosim non est necesse quamdiu idem effectus continuat."

It appears almost extraordinary, on reading the long catalogue of diseases in which in Germany it has been declared by men of the highest professional reputation, to be so useful, that it should until very lately have been, comparatively speaking, unknown in this country. In intermittent fevers, in paralysis, in asthma, in epilepsy, in scirrhus, in various glandular diseases, in amaurosis, in venereal nodes, did Baron STOERCK recommend it; and the cases he details fairly bear him out in the high opinion he had formed of its use. There are few English practitioners who place much reliance on it alone. Dr. DAVY says, that in some cases of intermittent fever, complicated with visceral diseases, and in some cases of chronic rheumatism, he has found a beneficial effect from the extract, which was not to be mistaken.

The homœopathists regard aconite very highly. A paper was read before the Homœopathic Society of Geneva, which gives to it the preference over bleeding. In the treatment of inflammatory action, it is declared by CHUIT to be a direct curative agent, and a pure antiphlogistic in simple inflammatory fever. A globule of 24 millionth power is an antidote; and pleurisy peripneumonia, in which the use of the lancet by the present school is considered as generally indispensable, will yield, according to the enthusiasts of the novel doctrine, to a well beaten, well shaken preparation of aconite, so minute as not to be appreciable by mortal powers. I do not advise you, however, to rely upon means so inadequate.

Of the united effects of conium and aconite in the cure of gout there is a very curious case related in the "Medical and Physical Journal" for 1804. It was one that had excited very considerable interest on the Continent. The subject of the narrative was the ABBE MANN, Canon of Courtray, who, at the early age of twenty-nine, experienced a fit of the gout, and for sixteen years endured sufferings of a most acute kind; to the arthritic complaint were superadded gravel, and a singular train of nervous sensations which affected the mind as well as the body, and rendered life itself insupportable. He had followed the advice of all the distinguished physicians in Europe during the progress of his disease, but, disgusted with physic and physicians, he entertained but little hope, and even little desire, of a prolongation of life, which, in fact, was become a state of perpetual suffering. A perusal of the very interesting narrative, which, from the respectability of the channel through which it was received, inspires us with a belief of its fidelity and accuracy, cannot but make us feel that every remedy had been tried from which relief might reasonably be expected. Fortunately Baron STOERCK's reputation reached the ears of the ABBE, and he determined, under the direction of HIMMELBAUER, to take the extract of hemlock combined with that of aconite, and he procured these medicinal extracts from Vienna, according to the formula of the celebrated physician. They were exhibited in the form of pills, containing each two grains. He took, three

times a day, four pills of the extract of hemlock, and one of aconite. In proportion as he became accustomed to them, he increased the dose. In five or six months he had gradually augmented the daily dose to one hundred grains, observing the proportion of five or six pills of hemlock to one of aconite. During the first three months the hemlock produced little perceptible effect; in fact, he began to despair, but from the advice of HIMMELDAUER he increased the quantity of extract of aconite. In a short time the stiffness of his joints was materially removed; his capability of taking exercise considerably increased; the spasms and nervous affections began to diminish. Encouraged by this success he zealously prosecuted the mode of treatment; at last the medicines produced their full effect, and his health was firmly re-established. The details of his case are related in the volume to which I have directed your attention, and although they are given with some theoretical opinions which may not be generally received, yet they are well worthy an attentive examination.

Among the diseases for which hemlock, aconite, and some other of the narcotics have acquired, for a time, great reputation, and have again baffled the sanguine expectations of the physicians, is a most painful disorder, which has, of late years, excited very considerable attention, from its being more prevalent than formerly; I mean the painful affection of the face commonly called tic-douloureux. This term was given by a French surgeon, of the name of ANDRE, who, in the year 1756, published a collection of chirurgical observations, amongst which were some which related to this complaint. Professor CHAUFIER gave it the appellation by which it is most generally known in the profession, neuralgia faciei. To the Greek and Roman physicians, to judge from their silence on the subject, it was utterly unknown. Two of the Arabian physicians, SIMON SETH, who lived in the eleventh century, and was physician to one of the emperors of the east, and EBR SINA, describe the disease, and, from their observations, RHAZES, one of the most distinguished men among the learned Arabians, has handed down to us an account of this affection.

It was at a meeting of the *Medical Society of London*, held at Bolt-court, from which so much that is excellent has emanated for the profession, that Dr. FOTHERGILL first drew the attention of the learned to this disease. In the "Medical Observations and Inquiries" for the year 1773, the paper was published, to which the simple title of a "painful affection of the face" was given; he does not appear to have known that before him any remarks had been made upon the subject. His attention seems first to have been drawn to it by the relief the learned doctor had been able to afford, by means of hemlock, to a middle-aged man, who was attacked with a pain in one cheek-bone, for which he could assign no cause. This pain was severe and continual, sometimes heightened to a degree almost beyond bearing. It had resisted mercurials, antimonials, alteratives, bark, warm and cold sea-bathing, drains of every kind. Several teeth had been extracted, and an opening into the antrum highmorianum fruitlessly made. Spasmodic contractions of almost every muscle of the body were at last produced by the excruciating torture he underwent: this sad state was most happily relieved by a judicious use and perseverance in the extract of hemlock, of which Dr. FOTHERGILL had, at that time, made several trials in other diseases. One of the first with which he met, was that of a lady of about sixty-five years of age, who enjoyed a general share of good health, was in easy circumstances, and free from any thing that could excite any latent cause of disease; in a moment she would be seized with the most excruciating pain, affecting the inner canthus of the eye; it lasted but a few seconds, forced out the tears, and gradually went off; the same thing happened again in a few minutes, and, in like manner, at unequal distances of time during the day, so as to occasion a life of misery. Opium relieved the pain, but its effects were almost as difficult to bear as the disease. Dr. FOTHERGILL, after obtaining only temporary relief from other means, at last had recourse, with very good effect, to hemlock. He had, at the time he wrote, seen about fourteen instances; he observed it more in females than in men, and never met with it in any person under forty years of age; he suspected that these pains were of a cancerous nature, and he found some cases in which there were, in females thus attacked, painful tumors in the breast.

Greater experience of the disease has shewn that in these conclusions he was too hasty. Instances have occured in which even as early as nine years of age the disease has appeared. FORSTMANN, JACKSON, DARWIN, all give instances of cases between twenty and thirty, and the experience of every practitioner confirms the fact, that it appears at an early age, and that in the far greater number of cases no connection whatever can be traced to cancer. Since the days of FOTHERGILL, many learned and unlearned, many valuable and many useless, publications have appeared in this country, in France, and in Germany, on the subject. PUJOL, in 1787, published a dissertation, which exhibited very great learning; he examined with great attention the writings of the ancients, with a view to ascertain whether they knew the disease under another name; his researches are very im-

portant to us, because they spare the necessity of any further inquiry. In the United States, a very excellent discourse was read before the *District Medical Society* at Boston, by Dr. JACKSON, who first remarked it in that city; and it was about the year 1812, that, in the "Medical Museum" published in New York, there appeared an interesting and distressing case, occurring to a very respectable physician of that city, and it was observed to be not a little remarkable, that the disease seemed to have been quite unknown in that city previous to the case just referred to.

It appears pretty evident, that the disease is of modern origin, and that although Dr. CURRY, physician to *Guy's Hospital*, was fully convinced "that the disease commonly known under the name of 'hemicrania,' is no other than tic-douloureux, affecting the nerves which supply the temporal muscle and scalp;" and although some other person has affirmed that gout and this disease are identical, and others have attributed it entirely to affections of the teeth, there can be no doubt that the nerve is the seat of the disorder; that the causes which excite or call into action any latent predisposition, may proceed both from external action, and from internal emotions; that it is influenced by the mind, upon which it is sometimes so dependant, that great excitement, or common occupation which distracts the attention, such as playing at cards, has been known to dispel the paroxysm.

One of the best papers that has appeared upon this subject is from the pen of the present President of the Royal College of Physicians, Sir HENRY HALFORD. It was read at one of the conversaziones of that body. His opinion is, that the disease is connected with some preternatural growth of bone, or a deposition of bone in a part of the animal economy where it is not usually found in a sound and healthy condition of it, or that it is connected with a diseased bone. The learned President has collected some cases which came within the sphere of his own observation, which fully illustrate his opinion. In one instance, on the drawing of a tooth, a large exostosis was observed at the root, and the lady suffered only very slightly afterwards. In another case a portion of bone exfoliated from the antrum highmorianum, and the disease ceased. Another instance occurred in which repeated exfoliations of the alveolar processes of the teeth appeared to be the cause of relief, after the failure of the division of several branches of the fifth pair of nerves. These and other cases are of very great value, and, beyond any doubt, lead us to the conclusion that the tic douloureux is oftentimes connected with, and dependant upon, an affection of the bone. Still, however, there must be other causes which give rise to this sad malady, more particularly as we find that neuralgia is not restricted to the face. Indeed, there is scarcely any part of the body that has not been attacked with such affections. It assumes so many forms, it is so often the result of injuries, and is so irregular in its approach, that the reasoning which is ordinarily pursued in our inquiries into the nature, the causes, and the seat of disease, before we attempt to find our therapeutic agent, does not always enable us to fix decidedly on the class of remedies to be employed.

Where tic douloureux bears an intermittent type, it yields more readily to bark, to arsenic, and to the general means by which periodical disorders are cured. When, as is oftentimes the case, it is connected with impaired digestion, preparations of iron, emetics, sulphate of quina, and tonics, are demanded; sometimes both these states are connected; and, as Dr. STOKER, of Dublin, has stated, cases of tic douloureux may be classed under the head of intermittent fever, as it appears often to be influenced by malaria; he observes that the first impression of the exciting cause is made on the gastric juices; that the disordered function of digestion, and the consequent morbid state of the chyle, whether ultimately absorbed, and carried into the sanguiferous system, or carried downwards by the primæ viæ, become, in their transit, a chief source of all their succeeding symptoms. But, besides these conditions, dependant upon malaria, and upon disordered states of the functions of nutrition, there is evidently an idiopathic affection of the nerves, which is exhibited in most intense suffering, which is only mitigated by anodynes or narcotics, which for a considerable length of time may be relieved, and again re-appear, and which at last ceases spontaneously, or is cured, but which in different individuals yields to very different remedies of this class. Amongst many cases, I have known neuralgia in the hand and fingers, I have known it in the arm and neck, upon a spot which might be covered by a sixpence; I have likewise been acquainted with the case of a young lady, a professional dancer, in which it occurred in the ankle and the sole of the foot, and in none of these cases was there any periodical return to be traced, nor was the disease to be attributed to any known causes. In all the pain ceased, whether in obedience to treatment I would not venture to say, but the great object I have always pursued in such instances has been to quiet the pain, at the moment, by hemlock, belladonna, hyoscyamus, or aconite, and then to give tone and strength to the system.

Much has been said of hysteria lately,—that it assumes a protean shape, that every disease has been imitated by it, amongst others neuralgia; pains of the most agoniz-

ing description in the back; in the mammæ, uncombined with inflammatory action, have had this denomination given them; they have been ascribed to "*hysteria*," a name which signifies, it appears, every disease occurring in a young female, whatever may be the symptoms that are exhibited. I had occasion in a former lecture, when speaking of digitalis, to point out to you that there is a certain period of life when, after the full development of the uterine system in the female, there is present a greater degree of nutrition than is necessary for the individual; in fact, nature is already commencing her provision for another being; the great determination is then to the womb, and to the mammary glands; hence we have, in the very lower region of the back, that pain which Sir BENJAMIN BRODIE has spoken of when he says, that nine out of ten of those unfortunate young women who have been "doctored" of late years for spinal diseases, have really laboured under nothing but hysterical pains in the back; and hence the symptoms observed in the glands of the breast; as that able and distinguished surgeon says, there is a sensibility which is not only exalted but exaggerated, caricaturing, as it were, the pain of organic disease. It is at this moment of life that the nervous system is in its highest state of sensibility, and that all diseases are simulated. After marriage these generally disappear; they seem to be dependant on the excessive determination of blood to those organs which are more immediately to become the situation of increased action, if the purposes for which they are destined be fulfilled. But although there is a redundancy of the circulating fluid there is no inflammation; there may be pressure upon particular nerves, which may cause those disordered sensations which occur. If no other name can be given than "hysteria," provided the profession fully understand what is meant thereby, it is as good a name as any other, and as our science is already encumbered with such an endless variety of new names given to old things, let us not add to the mischief which already exists, and which so much retards science. We are becoming that which Sir ISAAC NEWTON has stated that the Greek nation became, namely, a philological rather than a philosophical nation.

In the varied states of tic douloureux I believe that great relief is to be derived both from hemlock and aconite, and the doses, though at first moderate, may be increased until symptoms arise which evidently prove that the nervous system is influenced. A degree of headach, of giddiness, some slight impediment to clear vision, singing in the ears, prove that a sufficient quantity has been taken, and if to this any degree of sopor, swelling of the face, spasmodic twitching of the muscles of the face, be superadded, it is time immediately to abandon the use of the herb that has been employed, and to substitute another for it. It seems somewhat singular, that if a very short interval be allowed to elapse between the employment of a narcotic that has already exhibited some proofs of its potency, and the administration of another which approaches to it in power, there is no effect left upon the nervous system which renders it more quickly affected by the new remedy; and this is more remarkable if gentle aperients have been used. Local bleeding is, in many cases, of the first importance, and very materially assists the agency of the narcotic. I believe that a congestion in the blood-vessels, in addition to the existence of a morbid state of the nerves, does very frequently occur, totally independently of any inflammatory action whatever, which gives rise to a train of highly painful symptoms which are to be encountered by local bleedings, by digitalis, and by the administration of narcotics, and the external application, likewise, of this class of remedies.

Among other external applications to which attention has been directed, is that of the alkali obtained from the leaves and roots of the aconitum napellus, and which, undoubtedly, produces a most powerful effect upon the body. It was in the year 1825, that PALLAS first made his experiments on the aconite; the species which he selected for his analysis was the aconitum lycoctonum. In the year 1832, GEIGER published the results of his observations; he drew the inference that besides a bitter principle which resides in this family, and which was easily dissipated, there was a narcotic substance, of an altogether different kind, and that the leaves of the aconite, even just gathered, when they had altogether lost their bitter principle, retained a power of producing narcotism to a very great extent. The opinion thus expressed led M. HESSE to undertake a series of investigations upon the leaves of the aconitum napellus, which have led to our becoming acquainted with the peculiar properties which are resident in aconitine, and have placed it in our hands in such a form as to enable the medical man to employ it in the cure of disease.

The process pursued by M. HESSE for obtaining aconitine, is similar to that by which atropine is extracted from the belladonna. A precipitate is gained from a decoction, by magnesia; this is collected, washed in water, dried, and then treated in boiling alkohol, which dissolves the alkali which is deposited on cooling. It has likewise been obtained from the root. Great care is necessary during any manipulations with it, for BUCHOLZ, whilst operating on it, was seized with headach, vertigo, and pain. I

was informed by a very experienced chemist, that the slightest particle accidentally came into contact with the eye of a young gentleman in the laboratory; the most excruciating pain was the result, followed by a numbness of the side of the face; so rapid a poison is it, that the fiftieth part of a grain, dissolved in diluted alkohol, killed a sparrow in a few moments, and a very small quantity, scarcely appreciable, destroyed a small bird with the rapidity of lightning; applied to the eye, however, it only produced a momentary dilatation of the pupil. Aconitina, in its purest state, does not appear capable of crystallizing; it is white, in grains, or under the form of a colourless mass, with a vitreous lustre. It is inodourous, and bitter and acrid to the taste; this acridity disappears quickly; it is very sparingly soluble in water, but easily soluble in alkohol and ether; these solutions are alkaline; it is soluble in nitric acid, and in sulphuric acid, a red-coloured solution being produced.

The *Royal College of Physicians* has, in its new Pharmacopœia, given some notes relating chiefly to the chemical preparations; these are most important additions to the rules laid down for the chemist and druggist, and when the plan is more matured will be of very great utility. Aconitina is thus designated "an alkali, prepared from the leaves and roots of aconite. It is very soluble in sulphuric æther, less in alkohol, and very slightly in water; it is totally consumed in the fire, no salt of lime remaining." The concluding remark is very necessary, and what is known of the alkali fully justifies the caution which is thus given:—"It is endowed with violent powers, and is not rashly to be employed."

It has been lately used as a therapeutic agent, and great stress has been laid upon its excellence in neuralgic disease. The profession, however, has not yet taken up the subject with any of warmth, and, until further proofs be obtained of its power, it can only be classed amongst those remedies which are to be tried when others, upon which we have been accustomed to place reliance, have altogether failed. Indeed, the difficulty of obtaining the pure aconitine, and the uncertainty of its preparation, are sufficient reasons for our not having made further experiments. Some short time since, I was informed by my friend, Mr. Morson, of Southampton-street, whose zeal in chemistry has led him to operate upon the monkshood and its alkali, and upon the alkalies of other vegetables, that its value was eighty pounds an ounce, or three shillings and sixpence a grain. This price, however, will not be long maintained, as the herbalist will of course grow a sufficient quantity to answer any demand that may be made in the market, its cultivation must become an object of interest as soon as the medical profession feel confident that the aconitum napellus, or paniculatum, furnishes a remedy of the merit which has been ascribed to it.

I have known one instance only of its producing temporary relief, from my own personal observation. Dr. Turnbull brings forward seven cases of cure in neuralgic disease. The gentleman whose case I have known has suffered for several years from pain in the face; it is not, after the most careful observation, periodic in its return; it has no connection with disordered function of digestion or nutrition, but is singularly dependant upon mental emotion; from anxiety it is supposed, indeed, to have taken its exciting cause. Every remedy that experience could suggest has been tried, and with temporary relief, occasionally, but the agony returns as acute as before; a grain of aconitine to a drachm of lard was at first successfully rubbed, for nearly a quarter of an hour, upon the painful part, but a relapse soon occurred; the quantity of the alkali was increased, and again afforded temporary relief; it has, however, now completely ceased to have any effect; some degree of tingling and heat, and an unwonted sensation, followed upon its use, which gradually disappeared. The formula proposed by Dr. Turnbull is two grains to the drachm of lard, and six drops of alkohol; but other formularies have been given of the different remedies employed by him, to which I must refer you, as well as for the means he recommends to obtain from the fresh root of the aconitum napellus, the aconitine, a grain of which, dissolved in a drachm of alkohol, is so energetic, that twenty drops, put into the mouth of a guinea-pig, occasioned death in a few minutes.

TETANUS NEONATORUM.

MEMOIR BY DR. FINCKH, STUTTGARD.

The disease called "tetanus neonatorum," one of the most unmanagable and dangerous to which infants are subject, is described in a very brief and imperfect manner in almost all treatises on diseases of children, whether English or continental. Since the remarks of Dr. Clarke, and those of Schneider, which were published many years ago, nothing has been done to elucidate the nature or treatment of this affection. The following observations, therefore, merit attention, as being calculated to establish something positive in place of the vague notions which generally prevail on this subject: they are taken from a memoir by Dr. Robert Finckh, published in "Hecker's Annalen," Vol. III.,

No. 3, page 309, and founded on the observation of 25 cases of tetanus neonatorum, occurring at the Stuttgard hospital, between the years 1828 and 1835, during which period 848 infants were received into that establishment. From this it would appear, that in some parts of Germany the disease is rather frequent. M. Billard only saw two cases during his residence at the *Hôpital des Enfans Trouvés*, in Paris. Dr. Doepp, whose memoir on cases in the Petersburgh Hospital we published in a late number of this Journal, saw 20 cases in 4,500 children, and Dr. Collins saw but 37 cases at Dublin, in 16,654 children born during his mastership there. Of the twenty-five infants, alluded to by Dr. Finckh, thirteen were boys, and twelve girls, who were all born at the full period, and without having suffered any violence during delivery: in one case only had the mother been delivered with the forceps. It is also worthy of remark, that most of the cases occurred during the cold season.

Commencement of the Disease.—Tetanus neonatorum generally commences during the first week after birth. Thus, of the 25 cases only one began on the second day of the child's existence, while eight cases occurred on the fifth day, and seven on the seventh. The *prodromes* of this disease are so uncertain that we shall notice them but in a very brief manner. The child becomes uneasy; is seized with periodical fits of crying, which present a peculiar character; it takes the breast with avidity, but soon lets it go; the action of sucking is performed with difficulty, or is impossible; the intestinal canal is usually more or less deranged.

Symptoms.—As the disease becomes fully developed, the impossibility of sucking is quite marked; this is a very constant sign, and did not fail once in the 25 cases. The infant's face assumes a contracted and anxious appearance; the spasm of the muscles, at first insignificant, intermitting, and confined to the muscles of the jaw, becomes more intense, and extends to the muscles of the neck and back; and the spinal column is firmly fixed, or even bent backwards. In this state the child may lay, apparently tranquil, with the respiration a little accelerated, or it may be seized with violent and repeated convulsions. In this latter case the face becomes tumid, and almost black; the mouth is covered with foam; the arms and legs are bent up; the fingers and toes contracted. The spasmodic attacks occur every half or even quarter of an hour, and are brought on by apparently insignificant causes. After the lapse of twelve to twenty-four hours the infant falls into a state of general collapse, and soon dies in complete exhaustion. This latter period is very often marked by febrile symptoms, with burning heat of the back and head, while the extremities are icy-cold. The state of the umbilical chord is one of the circumstances which demands especial attention. In a great majority of cases a coincidence has existed between the separation of the chord and the development of the tetanus: thus the chord was separated fourteen times before the appearance of spasms, nine times during, and only twice after, their commencement.

Duration.—The duration of tetanus neonatorum is generally short. In fifteen cases the disease terminated within two days; one case was protracted to a week, two to five days; indeed it is almost incredible how long the tender constitution of the infant will sometimes resist this dreadful malady; thus, Dr. Elsässer saw one single case which did not terminate before the thirty-first day.

Causes.—Dr. Finckh examines them at some length, but we shall only give an analysis of his remarks. It is impossible to refer the disease to any congenital malformation, or weakness of the infant, for all the children were born at the full period, well made, and many of them vigorous. The doctor is inclined to rank, as more immediate causes, the convulsibility of new-born children, and the suppuration or ulceration of the umbilical chord. Amongst occasional causes, the author enumerates atmospheric influence, cold, gastric irritations, mechanical stimuli, and injuries. With respect to the nature of the disease, he considers it to be essentially the same as the traumatic tetanus of adults, and to be produced by a congestive or inflammatory condition of the central nervous system. Tetanus neonatorum is generally considered to be more prevalent in warm climates than in any other; but the observations of Dr. Finckh tend, certainly, to show that any exposure to cold, especially during the cicatrization of the umbilical chord, is apt to determine tetanic symptoms. Thus, children baptised far from home, during a moist, cold season, are often attacked; and, in Germany, physicians have, for a long time, made this interesting remark, that cases of tetanus abound in such districts as are deprived of parish churches, while they are much rarer in towns and villages where the proximity of a church enables parents to have their children readily baptised.

Diagnosis and Prognosis.—The peculiar cry and expression of the face, the trismus, contraction of the limbs and back, and, above all, the coincidence of these symptoms with inflammation or suppuration of the umbilical chord, render the diagnosis of this disease extremely easy. Unfortunately, the prognosis is of a most unfavourable kind. Strong, vigorous children resist

somewhat longer than weakly infants, but they all die. This is confirmed by the experience of all writers on this truly terrible disease.

Morbid Appearances.—We shall here repeat, at length, the results of twenty post-mortem observations made by the author. Most of the bodies were examined thirty-six hours after death; several from four to six hours after: and they were all enveloped in linen moistened with vinegar, and placed on the abdomen to prevent the gravitation of the blood.

(*External Appearances.*) The face retained its characteristic appearance of suffering; the muscular system, its rigidity; and the fingers and toes were powerfully contracted. The umbilicus was surrounded by a large circle of a green or bluish-green colour.

(*Spinal Marrow.*) The vertebral canal was opened in every case, and with extreme care. In four cases the spinal marrow and its membranes were free from any alteration. In the remaining sixteen an effusion of blood, in considerable quantity, occupied the whole length of the canal, between the bony walls and the dura mater. This blood was very dark in colour, sometimes fluid, at other times coagulated; in several cases it occupied more particularly a single region, as the cervical or dorsal, for example:—

In nine of the sixteen cases the dura mater and arachnoid were perfectly healthy. The pia mater was evidently inflamed and thickened in nine cases, and in three the portion lining the posterior surface of the spinal marrow, was deeply congested. The substance of the spinal marrow was firm and normal in the nine cases accompanied by inflammation of its membranes; in the seven remaining, an effusion of blood, or of a serous or gelatinous fluid, occupied the vertebral canal.

(*Cranium.*) In only one case were the contents of this cavity found exempt from alteration. In the other cases more or less extravasated blood existed at the surface, or in the interior of the brain. Thus, the effused blood was found:—

5 times on the surface of the brain.
5 —— in the plexus.
3 —— in the lateral ventricles.
2 —— under the pericranium.
1 —— at the surface of the cerebellum.
1 —— below the tentorium cerebelli.
1 —— above the tentorium. Here the forceps had been used.

The membranes of the brain were healthy, if we except more or less injection of their vessels. In one case an effusion of gelatinous fluid, instead of blood, was found between the arachnoid and pia mater. The substance of the brain, though commonly a little soft, offered nothing abnormal; in two cases, however, it was very hard, while the cerebellum was in a state of complete softening.

(*Thorax and Abdomen.*) The viscera contained in these cavities, presented nothing worthy of notice. The lungs and heart were commonly quite healthy. On opening the abdomen, the stomach and intestines were also found in a normal state; however, in five cases, some one portion of the intestinal tube was strongly contracted, while the rest was much distended with gas. The umbilical arteries and veins were carefully examined in eleven cases, without any trace of inflammation or other lesion being discovered. The various nerves and their plexus were also healthy.

Treatment.—This was exceedingly varied. In most cases the antiphlogistic method was tried, but all the children died, even when it was employed with vigour from the very outset. The symptoms were alleviated for a short time, by lukewarm baths; but whenever blood was abstracted, even locally and in small quantity, they were evidently aggravated. About a dozen cases were treated, ineffectually, with musk, opium, and other antispasmodics. In one case, however, the use of these remedies seemed to protract the disease to the 31st day.

On referring to Dr. Collins' "Practical Treatise on Midwifery," lately published, we find the following remarks on the treatment of this disease, which fully confirm the results of Dr. Fincke's experience:—

"With respect to the treatment, I have no suggestion to propose, as I have never seen an instance where the child seemed even temporarily relieved by the measures adopted. Calomel has been tried in large quantity, also in small doses often repeated, as well as extensive friction with mercurial ointment. I have tried frequent leeching along the spinal column, also repeated blistering over its entire length. Opium I have exhibited in many ways, both in very large and small doses; also tartar emetic in the same manner, and at times both combined. I have tried tobacco extensively, in the form of stupes and injections of various degrees of strength, from *one* grain to the ounce of fluid, to *five* or more; besides the frequent use of the warm bath, oil of turpentine, tincture of soot, assafœtida, and many of the ordinary purgatives and stimulants; and all, as far as I could judge, without a shade of relief." P. 516.

As to the morbid appearances observed in infants cut off by tetanus, Dr. Collins assures us that he was never able to discover any peculiar morbid appearance which would justify any explanation of the pathology of this disease. This is a sweeping manner of dealing with a most interesting

and important question, and we must protest against it with all our force. Dr. COLLINS should set a better example to the junior members of the profession, and furnish, however briefly, the evidence upon which he grounds his general deductions. Without an observance of this essential rule we can never hope to make any steady progress in the science of medicine for the simple reason that one *assertion* may be neutralized by another. Did Dr. COLLINS examine the spinal marrow in the thirty-seven cases which he mentions? Did he ascertain the condition of the umbilical veins? From our own reminiscences of the Dublin Lying-in Hospital, we should answer in the negative.

SUPPRESSION OF URINE FROM PARALYSIS OF THE KIDNEYS.

THE various cases of suppression of the urinary secretion in the kidneys, show that this is a highly dangerous affection. All of Sir H. Halford's patients died in four or five days. Haller, however, mentions a case of suppression which lasted twenty-two weeks. Parr saw one of six weeks' duration. If we are to believe Vieussens, a girl, eleven years of age, was affected with complete suppression for eighteen months.

Dr. Böke, of Berlin, has seen a few cases of this affection. In two, it supervened on scarlatina; one of the patients died, very unexpectedly, in a state of coma; the other case we give in an abridged form.

A young child had passed through scarlatina, without any accident, and the desquemation of the skin was proceeding, when he exposed himself to cold in a chamber: the child now lost his appetite, became weak and dull, and the face became somewhat swollen. He lay quietly on his back in bed, without fever; the tongue clean, thirst moderate; the bowels were opened twice every twenty-fours, but the secretion of urine gradually diminished, and finally became almost totally suppressed, the little patient passing only half a teaspoonful in twenty-four hours. The catheter was introduced, for the purpose of ascertaining if any urine was retained in the bladder, but the latter cavity was quite empty. The child was weak, flabby, and pale; only spoke when addressed; made no complaint; the pulse was small, weak, and slow; thirst moderate. For the next five days the patient slumbered constantly; but the night before his death, which was sudden, became very uneasy, and had fits of suffocation. Unfortunately the parents would not permit an examination of the body.

The treatment consisted in warm baths, blisters over the region of the kidneys, and the administration of diuretics. Cases of this kind seem to depend (according to the author) on paralysis of the kidneys from interruption of the nervous influence. The disease is a most insidious one, and requires particular attention on account of the apparent insignificance of the symptoms, which, for many days, consist in nothing more than dulness, weakness, and a pale appearance of the countenance. Hence the physician cannot be too careful, in doubtful cases, of ascertaining the condition of the urinary system.—*Hufeland's Journal*, Oct, 1836.

ABSCESS OF THE ABDOMINAL PARIETES. PROTRUSION OF THE INTESTINES. STRANGULATION. CURE.

A MILITARY surgeon was called in to attend a soldier's wife, 72 years of age, the messenger assuring him that the woman had split her abdomen, and that her bowels were all hanging out. He found the patient lying on her back in bed; the pulse almost imperceptible; violent vomiting; about one-third of the intestinal canal protruding. A few days previously, a small furunculus had appeared on the left side of the navel: it became ripe, and opened: the woman was soon afterwards seized with a severe fit of coughing, during which the contents of the abdomen were suddenly forced through the opening. The latter (about one and a quarter inches in length) was too small to permit the return of the intestine. The surgeon, therefore, widened the orifice with a bistoury; returned the intestines; applied one or two stitches over the point, and was fortunate enough to save the patient's life. —*Caspar's Wochen.* 1837. No. 8.

STYPTIC POWERS OF THE AQUA SECALE CORNUTI AND BINELLI.

IN November, 1832, Dr. Müller divided the popliteal artery in two sheep, and then applied a piece of lint to each, moistened, in one case, with the *aq. binelli*, in the other with the *aqua secal. corn.* The hæmorrhage was arrested in both cases, after the lapse of about six minutes: a similar result was obtained, after the same arteries were exposed a little higher up, and again divided. The caudal artery of a horse was cut through, and, while bleeding very freely, was submitted to the action of the above-mentioned substances; the hæmorrhage ceased in a few minutes. The anterior crural artery of the same horse, being also divided near its exit from the chest, the bleeding was arrested in eighteen minutes, with lint moistened in the aq. sec. corn.—*Klein. Repert.*, Dec., 1836, p. 79.

THE LANCET.

London, Saturday, August 12, 1837.

THE attempt which has recently been made at Cheltenham, by the promoters of the PROVINCIAL MEDICAL ASSOCIATION, to make it appear to the profession that their undertaking has not failed, is of a piece, and in character, with all the other proceedings connected with that ricketty enterprise.

In the report of the Council it was pompously announced, that the number of members had increased upwards of 300 during the past year, and this stated fact was adduced as proof that the "onward "course of prosperity of the Association "had, during the last year, *far exceeded* that "of any former year." Now, it will instantly be recollected by our readers, that other Societies, one called THE EASTERN MEDICAL ASSOCIATION, another THE SOUTHERN, another THE WESTERN, and so on, applied, in the last year, to be admitted as parts and parcels of the GREAT CONCERN—of the Joint Stock Company of Dubs and their deluded followers. The application at that time received the "respectful considera-"tion" of the Council, but the applicants were *not* admitted. Finding, however, by subsequent experience, that the Association was all but blown to pieces, and had nearly gone out of existence, with as little of noise and show as the bursting of any other bubble of equal insignificance,—then, and not until then, was the proposition for receiving the Branch Associations adopted. Thus it occurred, that a rotten trunk, and cankered branches, became engrafted upon each other, and then we are told to look to *the tree*, and observe what a splendid specimen it exhibits of healthy and flourishing vegetation! But where is *the fruit?* What is the quality of *that?* Bitter enough, we suspect, to the palate of most of the persons who have been compelled to partake of it. The "increase" in the number of members, considering how that result was obtained, furnishes the best evidence that can be adduced of the complete failure of the whole of the "Associations" which had originated out of the plan first promulgated by Dr. HASTINGS. All of them were tottering, and several of them have now combined, for the purpose of maintaining a more steady position; but this effort will be equally unsuccessful with every other which has been made to sustain an institution that is devoid of any one principle or attribute which could give it stability, and acquire for its proceedings the respect and confidence of the profession. Virtually, there has been no increase of members, but, on the contrary, if the defaulters who have not paid their subscriptions, be calculated as persons who no longer belong to the Association (and this calculation must be made, sooner or later), we defy Dr. HASTINGS, or any one of his colleagues, to prove that the members of the *Parent Association* have not *declined* in number since the Manchester meeting of last year. There was wanting nothing more than the evidence which was supplied on that occasion, to prove that the interests of the profession could not be adequately advanced by the Association, unless the conducting powers were transferred to new hands; or unless the Council then in existence, should be peremptorily bound by some rule of the Association, to adopt a perfectly new system of management. The President at the meeting at Cheltenham, Dr. BOISRAGON, evidently felt the very embarrassing difficulties of his position. He knew that there was nothing to boast of in the affairs of the Society, and the Doctor, very judiciously—we copy, literally, from the official report published in the Supplement to *Berrow's Worcester Journal*,—"en-"tered, *at considerable length*, into a statement "of *the salutary nature of the medicinal waters* "*at Cheltenham!*" So that the general practitioners who were present, had been called together from different parts of the country,

first, to hear it announced, amongst other things, and afterwards to see it advertised in the newspapers, that their patients residing in remote parts of the empire, had better at once repair to *Cheltenham*, and partake of the fountains of health flowing in *that* favoured land of Hygæia,—in that paradise where, says Dr. Boisragon, "fever, the "giant scourge of most great towns, is "nearly unknown," and where the "superior salubrity of the soil and climate" have been such,—"it was a remarkable fact,—"that during the late visitation of cholera "(which raged along the banks of the "Severn, from Bristol to Worcester), Chel-"tenham, although distant, in a straight "line, only seven miles from Gloucester, "and with an uninterrupted daily commu-"nication, did not present even a doubtful "case of that frightful, though partial, en-"demic,"—Dr. Boisragon's own words in the report before quoted. Of course, nothing could be more enlivening and agreeable than intelligence such as this, communicated, as it was, to a company of medical gentlemen.

When the President had concluded his address, Dr. Hastings came forward, in the character of Secretary, for the purpose of reading the Annual Report; and in the first sentence of that official document we find these words:—"It is certain that on the "present occasion there will be no diminu-"tion of desire to know the progress that "has been made in the prosecution of our "*great designs* since the Anniversary Meet-"ing at Manchester." Yes; such are the words; "Great designs!" On perceiving that the various subjects in the Report were considered under distinct heads, our eye glanced at once rapidly along the column, in order to get at some special definition or explanation of the "great designs;" and the following is a fairly-selected list of the titles of the different matters which form the Report in question:—

District Branches!
Proposed Resolutions!*
Transactions (the work bearing that title!)
Parochial Medical Relief!
Benevolent Committee!
Registration of Diseases!
Prize Essay!

And then the Council, as though they had determined to insult the company present, and mock the understanding of every sensible man in the profession, commence the last paragraph of the Report in question by saying that "on the *advancing pro-*"*gress* and on the *brilliant career* of this *vi-*"*gorous, energetic* Association, it is scarcely "necessary for your Council to dwell!" Of this ridiculous bombast, it is unnecessary to speak, but we certainly do regret that there was not present one man who had the honesty and courage to stand forward and expose the affair in the presence of the chief of its abettors. What could have prevented that exposure? What could have prevented its exposure with success? Certainly, the effort had been made elsewhere, and with tolerably good effect; but it must have been in the highest degree gratifying to a sound and intelligent medical reformer to have had the opportunity, and to have indulged it, too, of encountering these mock-medical patriots, face to face, and of bringing to their cheeks the crimson blush of shame. "Great designs!" Where is evidence of their existence to be found?

This Association has existed for upwards of five years. Now, we inquire, is there a single "great design" which has emanated from the Association during that time? Are the authors of the undertaking aware of the effect which this continued talk about great designs must have upon their characters? Can they not discover that a suspicion will arise, by-and-by, that the whole of the project owes its birth but to ONE motive, and that one consisting of a design *to obstruct the cause of efficient medical reform*? We emphatically ask for an announcement of the "great designs." Last year we demanded a bold exposition of the *objects* of the Association. *None has been given*; but it is still *intimated* that there are "Great designs," in embryo. It may seem uncharitable, un-

* All these resolutions had reference to the District Branches, only.

generous, to make a declaration of what is our *belief* on that subject; but even at the risk of subjecting ourselves to a charge of entertaining very illiberal opinions, we nevertheless do declare it to be our firm belief —a belief of slowly progressive formation —that if this Association was not projected for the one main purpose of *preventing the formation of a* NATIONAL FACULTY OF MEDICINE in this empire, wherein the "doctor" title should be bestowed on *all* the members of that Faculty, the Association *is now* mainly supported by a certain number of DUBS and PURES whose whole end and aim it is to obstruct, by every possible means, the establishment of such a national institution.

If we had only loose and undefined data whereon such a suspicion might rest, no indication of it would appear in these columns; but the features of what appears to be a fraudulent design are so distinctly and broadly set before us, the materials accumulate so rapidly, and are of so substantial a character, that all doubt on the subject quickly gives place to a maturely-formed and well-weighed opinion. Hence the expression of a belief on the subject is an act of duty, due both to our own feelings and to the interests of the profession, as some of our brethren, although not many, have, we suspect, been completely deluded and duped by the like stratagem.

What is the state of the case? The Society has been in existence during upwards of five years, and there is still a talk, by its founder, and even an announcement by the Council, in the official Report, of the "GREAT DESIGNS" which this wonderful society is yet to promulge. Certainly a powerful effort has been made by a sub-committee, formed out of the Council, relative to the odious practices which have sprung out of the operation of the new Poor Law; but the procuration of an amendment of that growing and frightful evil was not one of the "great designs" so pompously announced; because it does so happen that the new Poor Law was *not in existence*, and the project had not been even *announced in Parliament*, until nearly two years after this Association was planned. *That*, therefore, as we have said, was not one of the *vast objects* which entered into the views of any of the mock-reformers who had supported the scheme previously to the Spring of 1824. What then, we ask, *were*, and what *are*, the "great designs" of the leading actors and spouters connected with this Association? If five years have brought no specification of them, will the events of another five years be of a more satisfactory description? If there be a motive for concealment now, every reason exists for believing that others, equally cogent, will be in operation on future occasions.

But it is now necessary that we should recall to the mind of the reader, that a long while anterior to the formation of this Society, many schemes of medical reform had been discussed. Among the numerous plans which had been suggested for regenerating the character of our profession, and placing medical practitioners in that exalted position of independence which their utility and mental attainments undoubtedly entitle them to occupy, that of instituting a FACULTY OF MEDICINE,—consisting of three parts, with the requisite executive arrangements suited to the three great territorial compartments of this empire,—was the one which received the unqualified and ardent recommendation of the immense majority of the profession. It was proposed, that in that FACULTY OF MEDICINE all the successful candidates for the diploma should receive the title of "DOCTOR," and that the possession of the diploma of the Faculty should confer upon its owner the right to practise any branch of the profession in all parts of the empire. Every one admitted that an alteration of the laws relating to medicine had obviously become indispensably necessary. The clouds had thickened over the heads of the corruptionists. The storm lowered heavily and rapidly upon the jobbers, the peculators, and the monopolists. Excited by the representations and arguments of the medical press, and by petitions from members of the

medical body, the House of Commons directed the investigation of the subject by the well-known Parliamentary Committee over which Mr. WARBURTON presided for so long a period, a distinguished and able Chairman. A host of witnesses was examined, and the entire current of impartial testimony ran in favour of instituting a national, tripartite, FACULTY OF MEDICINE. Not a statement or an argument worthy of a moment's reflection could be adduced against the plan. Observe. All this had been done *before* the PROVINCIAL MEDICAL ASSOCIATION was instituted. Yet, during the five years that it has now been in existence, not one word has been uttered by the concoctors and supporters of the society relative to the proceedings before the House of Commons, or to the great design of establishing a NATIONAL FACULTY OF MEDICINE; while, even at the last meeting of the Association, the Dubs put the mask sufficiently aside to admit of their toasting the *College of Physicians! the College of Surgeons!!* and the *Company of Apothecaries!!!* and Dr. BARLOW, of Bath, in a speech which he addressed to the Company on that occasion, said, "that for those learned men who preside "over the Medical Institutions of the coun-"try, he felt *unmixed respect and esteem;* "the fault was not *in them* but in the "system; those gentlemen, *individually,* "had always acted according to *the dictates* "*of their soundest judgment.*" Oh, spirit of consistency! *This* from Dr. BARLOW! But passing over the fulsome compliment to the men who have upheld the faulty system,—who have never made an effort to amend it, but who have throughout clung to it as their life's blood,—what is the "system" which Dr. BARLOW and his compeers would recommend as its substitute? What is their "GREAT DESIGN,"—because that is the thing which we want to know,—so safely lodged in the egg of time, and over which they have been so long sitting, in the unprolific process of incubation? What, we repeat, is the "GREAT DESIGN" which, under the care of the Association, *is* to bring into activity an improved system of medical government?

In the hope of receiving, very quickly, a clear and distinct answer to this important question, our space admonishes us that the subject must be resumed in the next LANCET.

PHARMACY IN GERMANY.

THOSE persons who in Germany perform the duty of providing patients with medicines, do not also prescribe, nor do those who prescribe act the part of pharmaceutists. Yet the latter, as Mr. KANE remarks, in a paper lately read at one of the Medical Colleges in Dublin, rank in station with the prescribers, or physicians; their origin is as high, and their income is as considerable, and they are received in general and in learned society on the same footing as any other men who possess equal property and information. In fact, the pharmaceutist, the preparer and compounder of drugs—the apothecary of Germany—is "the fellow-labourer of the physician." His education at the earliest periods of his life is good; he then becomes an apprentice at a shop, in which access is obtainable to a laboratory, where he spends his time not merely in making up recipes, but in the nicest investigations of modern chemistry, working under the same circumstances that brought into action the neat KLAPROTH and the accurate ROSE, and developed the transcendant powers of discovery possessed by LIEBIG and by SCHEELE. From the shop and laboratory he goes to the University, and there attends such professors as he considers best qualified to teach him what he desires to learn. *No curriculum is here forced on his observance.* He knows the subjects on which he shall be examined; *that is sufficient for his guidance,* and he is left to acquire the information which will be required for passing his examination, *when, where,* and *how he chooses,* in the University. Chemistry, botany, pharmacology, zoology, mineralogy, physics, mathematics, and sometimes anatomy and physiology, form the objects of his study, and when about five years have been passed, he informs the pharmaceutic commission that he wishes to be examined, and he is accordingly examined, for two several days, and for more than two hours each

day, with great strictness, in the physical and natural sciences, including the preparation and compounding of drugs, in all of which a degree of knowledge is required which, says Mr. KANE, "it might prove very inconvenient to demand from many of our own most admired teachers." If approved, he receives a licence to hold a shop. The candidates also usually become "Doctors in Philosophy," as physicians become "Doctors in Medicine," the latter being a nominal degree which is quite distinct from the physicians' licence to practise medicine, and on which account persons in England "obtain a doctorship in Germany so easily." The number of pharmaceutists is limited, in the greater part of Germany, to one apothecary for each 5,000 persons, no mere retail druggist being allowed intrusion in that circle. The income arising from the business which the apothecary transacts is thus sometimes very large. In towns of 8,000 inhabitants from £600 to £800 is usually paid for an establishment, by a new tenant. In large towns a premium of even £1,400 is not uncommon. Indeed, Mr. KANE adds, that he was assured in Berlin, that, a short time ago, one of the first apothecaries' shops in that city was sold for £9,000, such shops having generally attached to them a factory of chemical preparations, the leading apothecaries in Germany being, generally, manufacturers of the more delicate chemical substances, particularly the vegetable alkaloids, while the names of such men as MERCK, WINKLER, and WITTSTOCK, are nearly as well known in the *commercial* as in the *scientific* world. The strictest care is taken by the government that no successful attempt shall be made by the pharmaceutist to increase his profits *by substituting an inferior article*.

One consequence of these important arrangements in favour of the advancement of pharmacy, the improvement of the methods of extracting and compounding drugs, securing their purity, bettering their form, and facilitating their therapeutical application, is to ensure a very imposing station for the German pharmaceutists. In fact, every meeting of the German Association of scientific men comprises a distinct section of pharmacy, the great mass of the work in the chemical and botanical sections of the Association being accomplished by persons who, if not now apothecaries, were originally intended to be such, had not their talents and love of science carried them to the highest sphere of action as pharmaceutists.

SPECIMENS OF THE MANNER IN WHICH

THE PRIVATE EXAMINATIONS OF MEDICAL STUDENTS

ARE CONDUCTED AT

APOTHECARIES' HALL;

WITH

COMMENTS BY DR. ELLIOTSON.

In a clinical lecture, delivered last week, Dr. ELLIOTSON took the opportunity of making some remarks on the mode in which examinations are conducted at Apothecaries' Hall. He said that he was induced to do so from the treatment which some of his most meritorious pupils had received from the examiners. Dr. ELLIOTSON prefaced his remarks by describing some cases of rheumatism; in which he pointed particularly, as is his custom, to the diagnosis which is to be drawn between the "hot" and "cold" forms of that disease, (to use popular language) the one being characterised by the relief which is afforded by the application of heat, or stimulants, the other being mitigated by cold, and antiphlogistic treatment. A general rule of this description was, he said, of great importance, not only in treating rheumatism, but in prescribing for various other affections. For instance (he continued), there were two kinds of delirium, which might respectively be called "hot" and "cold," or inflammatory and atonic, characterised by opposite symptoms, and requiring opposite modes of treatment; so, in vomiting, there was one kind in which there was pain on pressure over the epigastrium, in which the least stimulus did harm, and cold drinks at once gave relief; while there was another kind of vomiting, in which stimulants did good, and a small quantity of brandy was often the best remedy. Now, in rheumatism, from the affected part being near the surface, we could judge of the effects of the condition, perfectly, and the rule, regarding hot and cold applications, was of great importance. He had taught this doctrine for several years, and verified its correctness by a most extensive series of observations. The fact was to be observed daily in the hospital, and he seldom gave a clinical lecture in which some cases in point did not occur. He always advised his pupils to practise according to these facts,—not so much relying on what he *said*, but what they were in the daily habit of observing. He thought that every one in practice was acquainted with the above-named rule; yet he understood that a gentleman had been reprimanded in his examination at Apothecaries' Hall, for stating a truth which he had frequently witnessed in the hospital. This gentleman was Mr.

DAVID UNWIN, a highly respectable young man, who had placed on paper portions of his examination to which he (Dr. Elliotson) would now refer. In one question he was asked—"What is guaicum used for?"—"It is used in cold or atonic rheumatism."—"In what?"—"In cold rheumatism."—"I never heard of such a thing," said one examiner. "Nor I," said another who was sitting near, and laughed out loud. Then, turning to Mr. UNWIN, he said, "Perhaps you can tell us how often you have heard the term used?"—"Perhaps a hundred times, or more. I hear it nearly every day, if I spend some time at the hospital."—"Will you explain what you mean by it?"—"Rheumatism is commonly divided into acute and chronic, and into"—"Now," said the examiner, "I know what you mean; why did you not say chronic rheumatism?"—"Because rheumatism when chronic may be active, and it is then relieved by leeches, cupping, cold, &c., but if rheumatism be relieved by frictions, heat, &c., guaiacum would be beneficial; that kind, I call *atonic*, *passive*, or *cold* rheumatism." Here Mr. UNWIN (said Dr. Elliotson) showed his information; for rheumatism may be chronic, yet inflammatory; or it may be cold, and require stimulants, even from the first. So you may have chronic inflammation of the liver requiring antiphlogistic treatment—treatment as truly antiphlogistic as though the inflammation was acute from the first to the end of the attack, and had only lasted a week. Yet one of the examiners, who sat near Mr. UNWIN, said, that he "thought Mr. U. had got it from some old woman, for he (the examiner) never before heard of such a term." Now, gentlemen (said Dr. E.), this remark is personal enough, but I should not advert to it on that account; but let us hear a little more of the examination. Mr. UNWIN has attached his name to the account which he has furnished, and affirms its correctness. A piece of bark was next shown, and, after a few observations, Mr. UNWIN was asked—"What is its use?"—"It is used as a tonic."—"And what else?"—"As a tonic astringent in atonic diarrhœa, or for gargles."—"What else?"—"When used to cure agues, it is called an anti-periodic." "That's its use; why could you not have said so at once?" Now, he (Dr. E.) used bark fifty times as a tonic, where he used it once as an anti-periodic. He considered Mr. U. to have been perfectly right in his answer; but he supposed the examiner had fixed one answer in his own mind, and no other would be satisfactory to him. Mr. UNWIN was asked "Why quartans were most difficult of cure?" and he said, "They are more subject to local complications, and that might be the cause in some cases; but I do not know that quartans are necessarily complicated." "On account of the local complications, is the answer; you ought to have known that." Now, he (Dr. E.) was sure that the greater number of quartans were more obstinate than tertians, or quotidians, independently of any local complications. Some were complicated certainly, but it is a more chronic disease, and chronic diseases are, in their nature, more slow of cure. On the subject of pneumonia, Mr. UNWIN was asked what were the symptoms, and he said that the most certain was the crepitant rattle, heard by the stethoscope. "That's all very well to tell the extent of the disease *afterwards*. Go on."—"The cough in pneumonia is short, hard, and metallic."—"What are you talking about, *hard*, *metallic*? Go on."—"Sometimes there is a febrile state of the system from the commencement, but it may come on insidiously, and exist at first without much febrile excitement, or with scarcely any, if it be not united with pleuritis, or bronchitis, as it very often is." "You appear to know but little about it, Sir." "The pulse is hard, bounding, or oppressed; the sputum is distinct, and round, and rusty from the blood." Now, he (Dr. Elliotson) should say that Mr. UNWIN knew a good deal "about it." Patients often died after surgical operations and accidents, from pneumonia, their deaths being attributed to other causes, no apparent signs of the disease existing without the application of the stethoscope. Yet, after death, the lungs were found extensively inflamed, and the same continually occurred in fever. Mr. UNWIN was asked for the treatment. He said, "After bleeding copiously and repeatedly, according to circumstances, if the disease still continue I might either salivate, or give tartar emetic."—"Who did you ever see salivate for pneumonia?"—"Dr. Elliotson."—"For what diseases is mercury most beneficially used?"—"It is more commonly employed in diseases of the serous membranes?"—"Certainly; and is this a serous membrane?"—"No; but mercury is beneficial in all acute inflammations."—Now mercury (said Dr. E.) was of as much use in diseases of cellular, mucous, and parenchymatous structures as of serous tissues. Was it not beneficial in croup, in hepatitis, relieving both as much as pleuritis? He had seen numberless cases of this at St. Thomas's Hospital; and in his clinical lectures delivered there, which were printed in THE LANCET, many of them might be found. Mercury was of the same use in bronchitis and peripneumonia as in pleuritis.—The examination of Mr. UNWIN proceeded thus:—"What dose would you give of tartar emetic?"—"From 1-16th to 6 grains."—"What! six grains? Who ever gives six grains of tartar emetic for a dose?"—"Laennec did; and I have seen Dr. Thomson give a similar dose."—"After my examination was over," proceeds Mr. UNWIN, in his paper, "I requested the favour of being allowed to leave sooner than usual,

at the same time stating that I had been taking medicine for the last three months for a scaly eruption on my hands, and that my head and bowels were in a very uncomfortable state; upon this one person who was near me exclaimed, 'Oh! secondary syphilis; you have been larking, eh?' The result was what I expected, after this gratuitous insult. I was left to wait, as usual, as if I had to determine whether he was most to be pitied who possessed no feeling of compassion, or he who had no sense of decency."—Now this gentleman (said Dr. E.) had lepra vulgaris; he had taken, I understand, dulcamara and arsenic for it, during a long time, without benefit. I was satisfied that it was inflammatory, and required anti-inflammatory treatment, and therefore I had advised him to be bled, to take mercury, and to live very low, and this treatment was answering its object. The case was one of lepra vulgaris, apparent to the most superficial observer; it had no dingy colour, no tubercular elevation, and was situated not on the palms, but on the backs, of the hands. Mr. UNWIN was presently asked, what was the dose of rhubarb? He replied, from ten to twenty grains, in conjunction with something else, as it was apt to gripe when given alone. "To *gripe*, Sir," was the remark; "it never gripes."—I know (said Dr. E.) several persons who are always severely griped by it. When examined about hæmorrhage, Mr. UNWIN was asked what was the peculiar state of the pulse? After giving no satisfaction by his answers, he at last said that it was "jerking, sometimes."—"That is it, Sir," observed the examiner. In the treatment of hæmorrhage Mr. UNWIN omitted to mention one essential point, and that was, the propriety of keeping the feet warm. Now the pulse (said Dr. E.) may be jerking sometimes, where there is high excitement and strength, and where there has been a great loss of blood, but it is by no means an essential characteristic of hæmorrhage. Mr. UNWIN was asked, what nerves supplied the stomach? He said, "the eighth pair, and the splanchnic, from the sympathetic."—"Where do they come from?"—"From the sixth, seventh, eighth, ninth, and tenth ganglions in the thorax."—"Is that all?"—"Yes."—"What, does nothing join the ganglions?"—"Yes, there are two filaments that come from the spinal nerves to each ganglion."—"Where do they come from?"—"From the spinal column; and they pass out between each vertebra."—"I asked, Sir, where they came from?"—"From the spinal column; they arise by two roots."—"Where do they come from?"—"I cannot understand you."—"Why, they come from the *dorsal* vertebræ, do they not?"—Now (said Dr. E.) Mr. UNWIN is a gentleman who has been most attentive to his studies, and is a young man of strict morality, and likely to feel severely a charge of having contracted syphilis. Many young men might not think much of the imputation, but Mr. UNWIN does. Indeed, to show how severely he felt the remark of his examiner, I will read the postscript to his communication:—"If an account of my moral conduct, or an account of my studies, be required, I should with pleasure refer to Mr. John J. Cribb, surgeon, of Cambridge, to whom I was apprenticed, and where I also attended all the medical lectures delivered in that University during that period." Mr. UNWIN verifies his statement by solemnly declaring, "that it is a faithful account of parts of his examination."

Dr. ELLIOTSON now came to a case of inflammatory dropsy. He had often told the pupils, he said, that the affection was very common, independently of any local disease. They had seen case after case of it in the hospital. Indeed, he seldom lectured long without mentioning a case. He knew that the case was inflammatory, either by the existence of local inflammation, or, if it was only anasarca, by the face beginning to swell as soon as, or sooner than, other parts, and by the disease being produced by cold and wet. Purgatives might be sufficient for the treatment, but generally, as in the case before them, he took blood from the arm, and with the best effect. Dropsy might be inflammatory, though there might be no local symptoms to indicate inflammation. Now, was a student at his examination at Apothecaries' Hall to state that he would deplete in such a case, or was he to say directly the opposite to what he knew? Mr. JENNER, a gentleman who gained a silver medal in his (Dr. E.'s) class, was asked at his examination, a week or two since, "What he would do in dropsy?"—"That would depend," he replied, "on what kind of dropsy it was." On his stating that he would deplete before he gave stimulating diuretics in a case of inflammatory anasarca, he was asked, "how he would deplete?"—"By bleeding and purging."—"What, would you bleed in dropsy?"—"Yes; Dr. Elliotson recommends bleeding where there is inflammatory anasarca, known by its having arisen, commonly, from exposure to cold and wet, the face swelling before, or as soon as, any other part, the pulse being hard and quick, and, on examination, some signs of inflammation being usually discovered in the head, the chest, or the abdomen."—"Did you ever see any patients treated by bleeding?"—"Yes; two or three." Now (said Dr. E.) Mr. JENNER was afraid to say how many cases he had seen, so he said two or three, though he had been a very attentive visitor at the hospital, and had seen a large number treated by bleeding. Matters are in a lamentable state, Gentlemen, when a young man is prevented, in this way, from speaking the truth before the examiners.—

"Where were the cases treated?" the examiner continued.—"At the North London Hospital."—"Had they lived in London?"—"I don't remember."—"I am not here, Sir, to teach you the practice of medicine, but to examine you as to your knowledge of it, but I would advise you to look twice before you bleed once." A person who sat at the side of the table then made the following observation:—"If he has seen two or three cases cured by bleeding, he has seen as many as he ever will see." Now, Gentlemen (said Dr. E.), what am I to do? Things have come to a dead lock. Either I am unfit to teach, or the Court of Apothecaries are unfit to be examiners. It might be said that I should send to the Court a private communication on the subject, but I cannot think that a right course of proceeding. The examiners at Apothecaries' Hall are a public and responsible body, and I am a public teacher. Their proceedings have been in their public capacity, therefore I think that the proper course is to make the whole matter public. Here are the statements made respecting them, bearing the names of my pupils, attached to the written documents; let the Court disprove the facts which they relate. Some reformation is absolutely necessary in this body, and to make the examinations public, at the option of the candidate, is the only satisfactory mode which I know. Many students are too nervous to undergo a public examination, but the candidate should be at liberty to demand it. There will be no redress of these abuses until that reform is adopted. I will read the conclusion of Mr. JENNER's communication. What the examiner means I really cannot understand. He was asked, "Suppose you thrust a lancet into an anasarcous person, what would come out?"—"Serum."—"If you were to do the same thing to a person who was in that state, I think you would find that no serum would exude." Mr. GEORGE, a gentleman who gained the gold prize in my class (continued Dr. ELLIOTSON), went up to be examined on the 20th of July. "I had first," he says, "to translate a prescription, and being a little confused, I rendered half a grain first *semi granum*, and then *grani dimidium*, before I stumbled on the right phrase, *granum dimidium*. This matter being at length settled, we came to consider the uses of the medicine prescribed, and, amongst other things, I was asked how a small dose of calomel acted on the liver? to which I replied, "By stimulating the mucous membrane lining the orifice of the bile duct, which stimulation is conveyed, by sympathy, along that duct to the hepatic and biliary ducts, and then to the lobules of the liver, whereby they are excited to secrete an increased quantity of bile." Now I know, had I been asked this question (said Dr. ELLIOTSON), that I should have said, "Calomel stimulates the liver, because it has the power of stimulating it;" that is all we know about the matter; we cannot tell why one medicine affects one part, and another affects another; why cantharides irritate the bladder, and elaterium the intestines. Mr. GEORGE's reply, which was made only because he supposed that he must give some kind of an answer, and because it was what he had heard from a teacher, drew from his examiner (as Mr. G. says), "the encouraging remark, that a reply so absurd proved his (Mr. G.'s) ignorance of therapeutics, and of the principles of the abdominal circulation, and, from his *vis-a-vis*, the acute and witty observation, that "the gentleman had found out the north-west passage to the liver.'" He was then asked to describe the abdominal circulation, which he did, "quite correctly," so that the examiner condescended to be "glad to see that the gentleman knew *something*," and then explained to Mr. GEORGE *his* theory of the action of calomel, which was this:—"That as it passed along the intestines it stimulated the terminal branches of the exhalant arteries, and caused them to secrete a portion of the serum of their blood, which blood, thus altered in quality, was taken up by the veins, carried to the vena porta, thence to the liver, and there secreted, or caused the secretion of, fresh and abundant bile." The absurdity of the examiner's explanation (said Dr. ELLIOTSON) exceeded in his (Dr. E.'s) mind the folly of the other. When the candidate in Moliere's "Malade Imaginaire" was asked by an examiner, why opium sent people to sleep, he very properly replied, before the

> "Grandes Doctores doctrinæ
> De la rhubarbe, et du sene,"

in the following words:—

> "Quia est in eo, virtus dormitiva.
> Cujus est natura sensus assopire."

And his answer was considered to be so good, that a general exclamation followed, of—

> "Dignus! dignus! est intrare,
> In nostro docto corpore."

Mr. GEORGE's examination thus proceeded:—"What is the purgative dose of cream of tartar?"—"I would give two drachms, with a scruple of jalap and ginger."—"That is too large a dose, Sir," said one of the examiners, whilst his companion expressed an opinion that "*he could get through anybody's bowels* with two scruples, or a drachm, and the quantity of jalap which the young man had mentioned." Now, there is no rule (said Dr. E.) regarding the doses of medicine. You see patients here, Gentlemen, take two-drachm and half-ounce doses of the cream of tartar, every morning, while I have now a patient, in private, who takes ten grains of scammony, fifteen of jalap, and an once of cream of tartar every morning, with the best effect. I have known patients take an ounce and a half, and two,

or even three ounces, with only the proper effect.—"This medicine, sulphate of zinc, how would you use it?"—"As a tonic, Sir, in epilepsy."—"In what doses?"—"I would commence with a grain, and gradually increase it to four or five."—"Too large a dose, Sir." Now, said Dr. Elliotson, you cannot lay down rules with regard to the extent to which a medicine may be required and borne. A good practitioner will begin, in a chronic case, with such an ordinary dose of the medicine as he may think advisable. If this produces no effect on the disease, and does not disagree in the least with the patient, he will slightly increase it, and so proceed, until either the medicine disagrees a little with him, or produces the good effect which is desired. Only ill-informed persons settle what are the doses of medicine in all cases. There is no rule for apportioning doses, excepting according to the effect, or the want of effect, of them. Sometimes two or three grains of sulphate of quinina will be sufficient to cure an ague; but I once had a case in which a scruple given three times a day completely failed, and I was obliged to give the dose four times a day, when the disease instantly gave way, and no unpleasant symptoms ensued. It is the same with bleeding; sometimes four ounces of blood are sufficient for our purpose; sometimes patients bear the loss of as many pints, and the disease will not yield to the loss of a smaller amount. With regard to this particular medicine (the sulphate of zinc), you have seen very many cases of nervous diseases in the hospital, in which the dose was increased to 6 or 10 grains, without occasioning the slightest disturbance of the system. One girl, 17 years of age, having begun, on the 18th of October, with one grain, three times a day, had reached, by the 25th of the February following, a dose of 25 grains, three times a day, without experiencing the slightest pain, nausea, or sensible effect from it; nor did she suffer any until the time of her dismissal from the hospital, on the 27th of the same month. A man now in the wards began with one grain, three times a day, on the 24th of December last, and on the 2d of May was taking 29 grains, three times a day, without experiencing sickness, pain, or other sensible effect, having only twice in that time had momentary nausea, and he continued the last-named dose from the 2nd of May to the 23rd, without the slightest sensible effect resulting. Mr. George was then asked, "What remedy would you try in ague, when quinine failed?"—"Arsenic."—"In what form and dose?"—"I should begin with four or five minims of the liquor arsenicalis, and increase it gradually until it made an impression on the disease, or produced unpleasant symptoms."—Don't you know, Sir, that some medicines, when given in small doses, accumulate in the system? It would be safer to commence with a dose of six or seven minims!"

Now, said Dr. E., this remark appears very absurd. If medicine be apt to accumulate as here stated, the larger the dose, provided it be not rejected by vomiting, purging, sweating, or diuresis, would appear to be the most likely to produce mischief, so far as my experience goes. Arsenic is never given but to produce a constitutional effect, and our object is to introduce it into the system without producing any irritation of the alimentary canal, because, so soon as that occurs, such is the tendency of the medicine to excite inflammation of the stomach and bowels, that we are compelled immediately to desist from its use. A large dose is, of course, much more likely to irritate the alimentary canal than a small one, and we can never tell, beforehand, that a patient will bear a full dose of the medicine. It is, in my opinion, therefore, very bad practice to begin with a larger dose than two or three minims. That I slowly increase until the purpose for which I have given it is answered, or irritation of the alimentary canal, or some other disagreeable symptom, takes place. If you begin with a large dose at once, you are generally obliged to discontinue the medicine before having attained the desired good. With regard to the accumulation of medicines in the system, I believe that the effect ascribed to it arises, in most instances, from practitioners not watching daily for the first effect of a medicine, and not observing it, and continuing to give the medicine after it has begun to act; for when a medicine has surmounted the opposition offered to it by the constitution, and has produced the least effect, every subsequent dose is apt to tell powerfully. From invariably directing that not a dose of mercury shall be given, after the least tenderness of the gums, or unpleasant taste in the mouth is experienced, and directing this inquiry to be made before every dose is given, I am very rarely surprised by an over effect of mercury. The same is true of arsenic, digitalis, iodine, and all other medicines.

The examination of Mr. George thus continues—"What is the structure of mucous membranes?"—"They consist of a sub-mucous cellular membrane, to attach them to the subjacent parts; a mucous membrane, with follicles, glands, villi, &c., and an epithelium over all."—"I have heard of the epithelium, Sir, but have never been able to see it. Its existence is very doubtful," said the examiner. "Where is the kidney, Sir?"—"In the abdomen."—"No, Sir, it is behind the peritoneum." In the treatment of peripneumonia, Mr. George said that he would bleed largely, and then give calomel, or tartar emetic. "This, Sir, (shewing him nitrate of potash) would be a better remedy,"

said the examiner. Mr. GEORGE was asked several other questions about doses of medicine, &c., and also about some simple inflammation of the mucous membrane of the intestines, which his examiner considered to be "the same as dysentery." Mr. GEORGE was ultimately discharged with the following remarks:—"Well, Sir, I will recommend you to the Court for your certificate, but I cannot say that you have done yourself any credit by the way in which you have obtained it. *It is evident that you have spent your time in idleness, and, probably, in dissipation,* and have been learning a few things within the last few weeks. I would recommend you to go over every branch of your studies again. You may retire. You will get your certificate.—"You may retire, Sir."—Now, Mr. GEORGE, said Dr. ELLIOTSON, was an extraordinarily industrious pupil, never losing a moment in the twenty-four hours. Indeed, I was obliged to exhort him not to study so hard as he was studying last winter. His head had become so affected as several times to require the application of leeches. He gained the gold medal in my class last session; his answers to the questions which were put were admirable, and show that he possessed a thorough knowledge of the practice of medicine, and I will print them all. Yet look at the concluding remark of his examiner! In fact, we find that those students who acquire "honours" here, and are more than usually industrious, intelligent, and favoured by opportunities of instruction, fare the worst at Apothecaries' Hall; while those who are idle and ignorant, and who go to a grinder during a few weeks before they go up for examination, and learn the "favourite questions and answers" of the examiner, pass a "good examination," and often obtain the "compliments of the Court?" Gentlemen, notwithstanding all this, I must, next winter, go on teaching as I did in the last. I must submit to you undoubted facts, correct modes of diagnosis, and sound plans of treatment. I cannot swerve from the truth. Yet something must be done in order that the present system may be ended. Let the worshipful company disprove the statements in the accounts which I have now read to you, if they can. I have more statements in store, of the same kind.

[The following are copies of the questions put to the gentlemen mentioned in the above lecture, at the examination for prizes at University College. The candidates were secluded, for ten hours, while preparing their answers, without books, or the possibility of communicating with each other; and with regard to the replies of Mr. GEORGE, we are informed, on the authority of Dr. ELLIOTSON, that they were really very good dissertations on the points which were presented to him for answers]:—

"UNIVERSITY COLLEGE, LONDON. EXAMINATION.—APRIL, 1836-37.

"*Principles and Practice of Medicine.—First Paper.*

"1. What are the phenomena of the blood and its vessels in active hyperæmy; and what are the phenomena of suppuration and mortification?

"2. What are the chief means to be employed in the treatment of continued fever, and the rules for their respective administration?

"3. What are the symptoms and sequelæ of scarlatina; and the treatment of the disease and its sequalæ?

"4. What diseases of the skin are generally inflammatory, and what are often atonic, or cachectic; and what are the distinguishing characteristics of the two conditions?

"5. What is the distinction in the symptoms, between inflammatory and non-inflammatory affections of the head; and what are the remedies for the latter?

"6. What are the characteristics of insanity; and what are the principal points in its treatment?

"*Second Paper.*

"1. What is the distinction between spasmodic and inflammatory cough, and spasmodic and inflammatory dyspnœa; and what are the remedies of the spasmodic, with the rules for their administration?

"2. What morbid sounds occur in the heart and arteries; and under what circumstances do they occur?

"3. What are the various forms and causes of gastric and intestinal hæmorrhage; and what are the respective remedies, with their doses?

"4. What are the nature, situation, effects, and treatment, of biliary calculi?

"5. What are the phenomena of a phosphatic disposition of the urinary organs; and what is its treatment?

"6. What are the various causes of deficient micturition; and their distinguishing characteristics?

"JOHN ELLIOTSON, Professor.

[WE take this opportunity of publishing the following letter, on the subject of the examinations at Apothecaries' Hall, which was addressed to us some time since, authenticated by the name and address of the writer, and the statements in which we have since, in addition, taken pains to verify, by careful inquiry]:—

To the Editor of THE LANCET.

SIR:—Facts relating to the examinations at Apothecaries' Hall are valuable, because the grossest abuses prevail at them, and

they are conducted in a manner which is calculated to prevent publicity from being given to the scandalous proceedings which are there perpetrated. I beg you, therefore, to accept, for use in any manner which you may think right, the following statements, relating to the motives, the conduct, and the gross ignorance of the examiners of the Worshipful Company, as it is through your agency alone that a reform in the administration of justice at that or any other of our medical boards can be expected.

I am more especially induced to address you at this moment from the fact, that two of the very best informed pupils who have gone up for examination at the Hall this season, from one establishment, were the only two rejected on the evening of the miserable scrutiny into the attainments of candidates for the licence to practice. Both of these gentlemen appealed to the Court next day, and were severally refused a re-examination. These young men were rejected, one because he was originally *from Edinburgh*, the other because his examiner so bullied him that he became confused, yet they had no appeal from the decision. The following conversation took place next day at the Hall, after the Edinburgh man was rejected:—

Q.—Mr. Sayer, pray what steps should be taken by a gentleman who was rejected last night, and who wishes to call a Court?

Mr. Sayer.—It cannot be done, Sir.

Q.—What, is there no appeal?

A.—No, Sir.

Q.—Are you sure of that? for if such be the case, the fact is too bad.

A.—It really is not allowed, Sir.

Q.—What is the reason that the examiners try to reject Edinburgh students?

A.—Sir, I assure you that that impression is erroneous.

Q.—Oh! but I am convinced that such is the case. Be candid, and tell me why it is so.

A.—Why, Sir, the real fact is, that in Edinburgh there is only *one* hospital for the pupils to attend at, and here there are *a great number*, therefore the Court *prefers the London students.*

These, Mr. Editor, were *the exact replies!*

Another point, of vast moment to the student and the public, presents itself. The examiners are positively behindhand in knowledge, when compared with the candidates, in many cases, and frequently a candidate states a fact with which his examiner is not acquainted, and the student is told that he is *wrong*. Accept an example.

Examiner.—What are the antidotes to corrosive sublimate?

Candidate.—Albumen, gluten, or meconic acid.

Ex.—*Meconic acid*, Sir! You are wrong.

Cand.—It is directed in Christison, Sir.

Ex.—Umph! *I was not aware of it.*

Ex.—In what cases would you give alum?

Cand.—In colica pictonum.

Ex.—*You know nothing about it, Sir.*

I could give innumerable instances of this kind, but these will suffice. The following are examples of some peculiar theories of the examiners:—

Ex.—On what part of the system does a sedative act?

Cand.—On the nervous system, Sir.

Ex. (*angrily.*)—That is a disgrace to your other answers. Upon *what part*, Sir?

Cand.—On the vascular system.

Ex.—Well, Sir, why did you not say that at first?

So overboard goes all the control of the nervous system.

The different degrees of examination to which candidates are subjected are most extraordinary. One man gets a practical examination, another hardly any examination at all. A *successful* candidate came, a short time ago, to his *grinder*, and said,—"Why, they asked me a question about a very rare disease. They asked what *enteritis* was; and all I could tell them was, that there was *fever* in it. Have *you* ever seen a case of enteritis?"

Ex.—What is *ejus*, Sir? (Candidate stated.) Ex.—Very good, Sir, you appear to *know your Latin.*

I heard a *successful* candidate one night tell his friend that he was asked to describe the *uterus*, but he could not, and they passed over the inability and ignorance of the young man. Such facts are sufficient to induce the profession and the public to rise in arms against the present system. The bullying and frightening of nervous candidates is equally unjust and disgusting. An old blustering Examiner first frightens a young man out of his wits and then rejects him, and the young man has *no appeal!* He is rejected, perhaps, in consequence of giving some peculiar theory, in entertaining which he may be perfectly correct. Yet he has no appeal! He may not agree with his Examiner as regards the doses of medicines. *He* may be right on this subject, and the Examiner wrong. Yet he has no appeal! His Examiner may be half-seas over with wine. Yet he has no appeal from the result of the intoxication! THE LANCET, the great instrument of medical reform, is the only court of appeal against such abuses, and to that I come on behalf of the student. I am, Sir, your obedient servant,

VINDEX.

THE PENNY-CLUB AND GRATUITOUS-MEDICINE SYSTEM.

To the Editor of THE LANCET.

SIR:—Although much interested in the discussion of what you denominate matters of vital interest to the profession, viz., the "club" system, I have forborne to take part in the dispute. I was some years ago instrumental, in conjunction with others, in establishing a "medical club" on the self-supporting dispensary system, combined with *gratuitous* assistance in peculiar cases. It prospered in contributions from the rich and benevolent, but the self-supporting part of the scheme prospered not at all. This I ascribe to some want of zeal on our parts; but more to the absence of sufficient inducement to the poor, by reason of the following circumstances:—

1st. The great facility in London of obtaining hospital or parochial relief.

2nd. The equal facility with which medical aid can be obtained on *false pretences*, i. e., employing a practitioner, and *neglecting* to pay him, many of these people being too poor to justify the attempt to recover from them by legal process; others being fugitive, and lost sight of, ere attempt at recovery can be made, if even it were benevolent or prudent to do so. The undertaking had the honour of your opposition, and the grounds of hostility, as reasoned by you, did, in a good degree, convert me to your opinion. However, I have no where found *one* of the recommendations of self-supporting dispensaries proved to be unworthy of consideration; and until that be done, there are, I assume, circumstances under which their adoption would be highly expedient, if not absolutely necessary. The condition alluded to, is best exhibited in a case illustrated by painful experience—*my own*. However improbable the statement, I presume I may appeal to your knowledge of the writer, as a presumptive evidence of its truth.

I have been in practice about seventeen years, during which period I have laboured for the poor considerably more than the three poor-law commissioners, with their three-times-three-next-following successors, will labour in the same service for twice that period. I profess no extraordinary benevolence, nor desire to have these exertions set down to selfishness. A combination of motives in which neither preponderated, is a fair statement. Although I was not insensible to the value of instruction obtained, nor to the prospective advantage of professional reputation and influence to be acquired with the opulent, from the good report of the poor, yet, so abject was their poverty, and frightful their destitution, that it was impossible to withstand their appeals, nor often, indeed, to forbear voluntary assistance, where, desponding of response, they abstained from solicitation. For six years I relieved more than 5000 annually, with advice and medicines; this assistance, frequently afforded at their own habitations, included every variety, and often imposed considerable labour, harassing *responsibility*, and, to me, injurious expense.

Notwithstanding such an extensive operation of gratuitous relief, I was abundantly *employed* with *ostensibly* profitable occupation. I was paid by *one patient in twelve!* the remainder being literally unable to pay, or persons whom it would have been a ruinous hazard to attempt coercing into a duty, which, probably, they could sometimes have discharged without a serious abridgment of the comforts or necessaries of life!

If every individual thus referred to had paid me 2*s.* 6*d.* a year, I could *have made my rounds in a curricle, and should, by this time, have achieved a decent competency for six children*. Moreover, I should have enjoyed these advantages without the unworthy compliances, servile compromises, and disingenuousness which, I fear, form the nucleus of every considerable success in the medical profession, where the party hath not commenced with the education of a gentleman, and such opulence as countervails the tendency to dishonouring conduct when he is struggling for bread amidst mercenary and vulgar-minded competitors. Destitute of fortune; with nothing but my legal qualification, and "mine own free spirit," need I say that I am not an example of the "considerable success" above referred to? But I should honourably and gratefully have acquired it, if *every patient I have attended, presumably intending to remunerate, had paid me* 2*s.* 6*d. per annum*. What say you to this? If the dignity of a gentleman would have permitted it, in many cases, and it had consisted with only a low degree of morality in others, to harass the wretches, whether poor or unprincipled, by pursuing them into a county court, to be adjudicated on by a *small journeyman judge, a shirtless barrister*, and *three shirtless jurymen*, I should have derived a large income—my own self-contempt—and the execrations of two-fifths of the indigent population of a metropolitan parish, 19½ miles in circuit. What say you to this? I have long abandoned the custom of supplying the sick with drugs; and I now actually obtain as good an income from leaving, to little more than the option of *another class* of patients, the *amount* of reward for labour, which leaves me ample time for study, recreation, and repose. How striking must be this contrast with the long past, you may infer from the fact, that, at one period of my devotion to what I then hoped would be a successful, and still think the *only* legitimate mode, of *self*-ad-

vancement, I attended 500 cases of midwifery in twenty-three months—*for nothing*.

The profession owes you a large obligation, it relies on your judgment, is convinced of your integrity, and therefore may be greatly influenced by your advocacy: reconsider all the circumstances of the poor, and the condition of the profession; especially as influenced by the WHIG atrocity, the New Poor Law Amendment Act, a measure which, in the conception, stamps its contrivers as scarcely better than idiots, exceeded in fatuity only by their nose-led and selfish approvers, set about inquiring whether half-a-crown a year was not better than nothing, as it would have been in *my* case; or, still better, than 5s. or 15s. extorted by low and oppressive pseudo-judicial proceedings; or higgling for sixpences in seven-shilling accounts current; or vending powders at 3d. per dozen, and bargaining about mixtures at "the low price of one shilling?" "Reform it altogether." Yours, &c.

DELTA.

THE BRIDGWATER BOARD OF GUARDIANS AND THE MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR:—An advertisement having appeared in the *Standard*, and other papers, for medical practitioners to take charge of the Paupers of the Bridgwater Union, I shall be much obliged by your giving publicity to the following statement of facts for the information of the profession generally:—

The medical gentlemen who undertoook the charge of the poor, during the last year, having found that they were considerable losers by their contracts, declined to renew them on the very low terms offered by the Board, but were willing to accept the minimum average paid throughout the kingdom. This reasonable offer was rejected by a majority of twenty-four to nineteen; two unqualified men were then appointed to a district which one surgeon had taken charge of before, and a resolution was passed to advertise for four surgeons to undertake the care of the remaining districts which the Board had determined, at a former meeting, should be divided into seven, five active surgeons having been found to be an insufficient number to perform the duties required. The medical officers have always been treated by the Guardians with marked disrespect. No representation from them, however important, has ever received the slightest attention, not even a formal acknowledgment, and the Board, finding themselves unable to awe them into submission, or compel them to accept terms which were degrading to the profession, allow themselves to be influenced by resentment and vindictive feelings, and threaten to bring opponents into the neighbourhood. As soon as this disgraceful business is settled, the medical gentlemen intend to bring the whole affair before the public, and, in the meantime, I hope you will be so good as to insert this communication in an early Number. I am, Sir, your obedient servant,

J. BARUCH TOOGOOD.

Bridgwater, July 3, 1837.

*** We have been unavoidably compelled to delay the publication of this letter.—ED. L.

TERMS OF SCIENCE IN NATURAL HISTORY.

PRESERVATION OF SKINS, &c.

To the Editor of THE LANCET.

SIR:—I herewith enclose a letter transmitted to me by my friend Charles Waterton, Esq., of Walton-Hall, Yorkshire, on which any comments from me might be considered presumptuous, as it carries with it, most pointedly, its own justification. I cannot avoid remarking, however, that the researches of this student of nature appear, in my humble opinion, to be of infinitely more value than those of all the cabinet or closet naturalists, with all their parade of ephemeral arrangements and affected nomenclature, their pedantry and work with lexicons, murdering the Greek for the manufacture of absurd and barbarous terms, and all this with the view of imposing an air of novelty on worthless compilations. When such affected jargon and mummery, misnamed science, shall have given place to truth and reason, then, doubtless, will be read with delight the graphic descriptions Mr. Waterton has given from careful observation amidst the deep and sombre retreats of the South American forests.

What this author has remarked on the habits of the American vulture (as well as of other animals) I know to be correct. The bird here mentioned is certainly guided to its food, not merely by the eye but by the sense of smell, as are most insects and many other animals.*

I can well say thus much of Mr. Waterton's labours, having, in South America, witnessed his zeal and assiduity in acquiring a knowledge of animals in their native haunts. Such acquisitions form the genuine naturalist, and too often excite the envy of those who are less informed, and affect to condemn what is altogether beyond their reach. It is to be hoped that many *virtuosi* will receive

* This appears to be, in some degree, anatomically corroborated, from a dissection of one of these birds, as stated in a paper read at a late meeting of the Zoological Society by Mr. Leeler, who observed a remarkable development of its olfactory organs.

a salutary hint from the remarks of Mr. W., and learn from thence that science (so termed) without common sense, is but idle jabber.

A justly celebrated Professor in the University of Northern Athens, who had unluckily joined in the hue and cry in praise of a modern Baron Munchausen, received, two years ago, from Mr. W., a severe rebuke, to which he has not thought proper to attempt a reply; indeed, the said Professor has shown good sense in a tacit acknowledgment of his error, and by omitting any further plaudits on the individual in question.

I would make one remark further, *i. e.*, on the preservation of skins and other animal substances, a subject of no small importance to natural historians. I have often employed the alcoholic solution of corrosive sublimate, as recommended by Mr. Waterton, since he gave me his *recipe* in 1812, and always with perfect success, when duly prepared. I have also tried the arsenical soap, but with me it has proved useless. Arsenic, indeed, is a potent corrosive, or caustic, but scarcely possessed of any antiseptic or preservative property.* It is true that I had previously employed the sublimate in a compound powder from Kuckahn's recipe (see "Phil. Trans." 1770, and "Dr. Lettsom's Travellers' Companion") an expensive preparation, containing withal a quarter of a pound of musk. As to Sir James Smith's recommendation of the use of corrosive sublimate, it was, if I remember well, only against the depredations of *insects on dried plants*, and not as a preservative of animal substances. I am, Sir, your obedient servant,

JOHN HANCOCK.

London, July, 1837.

* Should a non-corrosive antiseptic be wanted, the oxymuriate or chlorate of potash will be found to be one of the most effectual.

POST-MORTEM EXAMINATION OF THE DUCHESS OF ST. ALBANS.

To the Editor of THE LANCET.

SIR:—In the *Morning Chronicle* of this day, the following advertisement appears, page 3, col. 4:—"The body of the late Duchess of St. Albans has undergone a *post-mortem* examination, which was performed by Mr. MAYO." Now, Sir, I beg to ask whether this is the truth. I have heard, accidentally, that another gentleman, a teacher of anatomy, was called in by Mr. Wardrop, the surgeon of the late Duchess, to examine the body, at the wish of his Grace, the Duke, and that that gentleman did perform the post-mortem examination, assisted by Mr. Mayo, who was invited to be present by the physician under whose care her Grace departed this life. If it be the case that Mr. Mayo was only a partner in the necropsy, I beg to know how that gentleman, or whoever else wrote the advertisement (and a good guess may be made of the authorship), justifies the advertising of only one name on this occasion? With regard to the assistance of Mr. Mayo, I can say that it is not regarded in the profession as exactly the thing for a "pure," who is amongst the most determined sticklers for rank and surgical position, to be going about taking fees, of either two or ten guineas, for opening dead bodies in private houses. I am, Sir, your obedient servant,

ANDREW MACKAY.

London, Thursday, Aug. 10th.

THE QUEEN'S "MEDICAL ESTABLISHMENT."

(*From the London Gazette, Aug.* 8, 1837.)

Physicians in Ordinary.—James Clark, M.D.; Sir Henry Halford, Bart., M.D., G.C.H.; William Frederic Chambers, M.D., K.C.H.

Sergeant Surgeons.—Sir Astley P. Cooper, Bart., G.C.H.; Sir Benjamin C. Brodie, Bart.; Robert Keate, Esq.

Physician to the Household.—James Clark, M.D.

Surgeon to the Household.—John Phillips, Esq.

Apothecary to the Person.—John Nussey, Esq., and Edward Duke Moore, Esq., jointly.

Apothecary to the Household.—John Nussey, Esq., and Charles Craddock, Esq., jointly.

The Queen has also been pleased to appoint—

Sir James M'Grigor, Bart., M.D.; Henry Holland, M.D.; Peter Mere Latham, M.D.; Richard Bright, M.D.; and Neil Arnott, M.D., *Physicians Extraordinary to Her Majesty.*

Benjamin Travers, Esq.; Thomas Copeland, Esq.; William Lawrence, Esq.; Henry Earle, Esq.; and Richard Blagden, Esq., *Surgeons Extraordinary to Her Majesty.*

Messrs. Merriman, of Kensington, *Apothecaries Extraordinary to Her Majesty.*

Charles Dumergue, Esq., *Surgeon Dentist to Her Majesty.*

Louis Durlacher, Esq., *Surgeon Chiropodist to Her Majesty.*

Mr. Squire, *Chemist and Druggist to Her Majesty.*

WESTMINSTER HOSPITAL.

RHEUMATISM.—HYDRIODATE OF POTASS ONLY OF TEMPORARY SERVICE.

T. Caldwell, ætat. 25, admitted under Dr. Roe, March 22, complaining of great pain in the scapular muscles, and both shoulderjoints; the left knee, right ankle, aponeuroses of the left arm and forearm, and cervical muscles. Tongue covered with a white fur; skin hot; urine high coloured and scanty. Pulse 80. Caught cold six months ago; and has had these pains remittently and intermittently ever since. Last night the pains were particularly aggravated. Take of *hydriodate of potass* two drachms; *distilled water*, half a pint: mix. Let the man have an ounce three or four times a day.

25. The pain is still great in the shoulders; face pallid; great debility; pulse 90, and full.

27. Sharp pain, but no tumefaction in the left hip. To take immediately half an ounce of spirit of turpentine, and half an ounce of castor oil, for a draught.

April 14. The man got quite well; but, relapsing, was re-admitted, and was then treated with the following mixture. Take of *wine of meadow saffron*; *wine of ipecacuanha*, of each two drachms; *camphor julep*, eight ounces; mix. An ounce three times a day.

17. The pains are still acute in the knees and arms. In addition to the mixture, he is to have a pill every night, consisting of half a grain of opium, and a grain of calomel.

22. Well.

PHTHISIS.—LARGE ISSUE.

Joseph King, ætat. 35, admitted June 14, under Dr. Roe. He has violent and frequent cough, difficulty of breathing on the slightest exertion, and acute pain in the lower part of the left side and thorax. He expectorates about a pint of thick mucopurulent matter in the twenty-four hours. He perspires very profusely at night, and during this state the cough is relieved, but it becomes virulent towards morning. He is much emaciated and etiolated. Tongue loaded with a dry fur. The skin is hot, and without any moisture. The pulse is full and very compressible. The bowels are generally constipated. The patient is a musician by profession, and was, consequently, in the habit of playing various wind-instruments for several hours continuously. According to his own account, he ruptured a blood-vessel about six months since, and then lost a great quantity of blood. Since that event, he has been subjected, after being employed in his vocation, to attacks of hæmoptysis. He has served as a soldier for sixteen years, and during the last twelve, he has been an inveterate toper. The stethoscope indicates the existence of a vomica under the left clavicle. He is ordered to make frequent potations of diluent and mucilaginous fluids, and to take the following mixture every four hours. Take of *tartrate of antimony*, four grains; *tinct. of opium*, one drachm; *camphor julep*, eight ounces. Mix, and let an ounce be the dose.

21. The cough is more quiet, and the patient, consequently, more tranquil. His bowels being bound, are to be opened with a dose of senna and manna.

22. An issue of about the size of a crown piece is to be made, by a mixture of potassa fusa and soft soap over the cartilages of the left true ribs. He is to continue the mixture.

25. The issue already discharges very well; and the cough, which before was so troublesome, has been signally relieved. It is not so urgent at night as to prevent his sleep. His nervous system is comparatively tranquil; his expectoration has diminished; but the emaciation still proceeds.

28. He is, *apparently*, improving rapidly, and the cough hardly troubles him.

29. The patient is in great spirits to-day, and imagines that he is rapidly recovering. He has pectoriloquy in the left lung. The bowels are still slow. Pulse 100.

30. Apparently improving.

The patient assumed for a while a fallacious convalescence, but, of course, the organic lesion was insurmountable, and the patient sank.

The Court of Examiners of the Worshipful Company of Apothecaries have passed a Vote of Censure upon Mr. Bacot, and Mr. Ridout, two members of that body, for accepting appointments in the Council of the Metropolitan University, and Messrs. Bacot and Ridout are no longer Examiners at Apothecaries' Hall. The names of the new Examiners have not yet been announced.

CORRESPONDENT.

Our correspondent, *J. X.*, must perceive, on re-perusing the notice to which he has adverted, that Mr. Kramer was not represented as the *inventor* of the bed, a model of which he had brought to this country. Since, however, that notice was written, we have had an opportunity of seeing the model which Mr. Kramer had constructed, and we may now state, that there is nothing of the least importance that is new in the design. A bed of exactly similar construction was manufactured upwards of two years since by Mr. Weiss, of the Strand. The contrivance altogether displays much ingenuity in the invention.